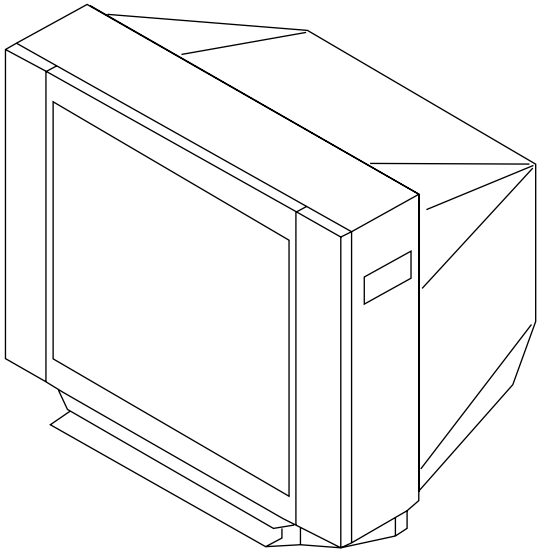
Self Diagnosis
Supported model

SERVICE MANUAL

BG-3S CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.	MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-XF25M50	RM-954	India	SCC-U22S-A				
KV-XF25M80	RM-954	India	SCC-U22T-A				

(RM-954)



TRINITRON® COLOR TV

SONY®

SPECIFICATIONS

		Note
Power requirements	110-240 V AC, 50/60 Hz	
Power consumption (W)	Indicated on the rear of the TV	
Television system	B/G, I, D/K, M	
Color system	PAL, PAL 60, SECAM, NTSC4.43, NTSC3.58	
Channel coverage		
B/G	VHF: E2 to E12 / UHF: E21 to E69 / CATV: S01 to S03, S1 to S41	
I	UHF: B21 to B68 / CATV: S01 to S03, S1 to S41	
D/K	VHF: C1 to C12, R1 to R12 / UHF: C13 to C57, R21 to R60 CATV: Z1 to Z39, S01 to S03, S1 to S41	
M	VHF: A2 to A13 / UHF: A14 to A79 / CATV: A-8 to A-2, A to W+4, W+6 to W+84	
(Antenna)	75-ohm external terminal	
Audio output	6W + 6W	
Number of terminal		
(Video)	Input: 3 Output: 1 — Phono jacks; 1 V_{P-P}, 75 ohms	
♪ (Audio)	Input: 3 Output: 1 — Phono jacks; 500 mVrms	
(S Video)	Input: 2 — Y : 1 Vp-p, 75 ohms, unbalanced, sync negative C :0.286 Vp-p, 75 ohms	
(Headphone)	Output: 1 — Minijack	
Picture tube	25 inch	
Tube size (cm)	64 — Measured diagonally	
Screen size (cm)	60 — Measured diagonally	
Dimension (w/h/d, mm)	722 × 515 × 512	
Mass (kg)	39	

Design and specifications are subject to change without notice.

CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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SELF DIAGNOSTIC FUNCTION

The units in this manual contain a self-diagnostic function. If an error occurs, the STANDBY/TIMER lamp will automatically begin to flash.
The number of times the lamp flashes translates to a probable source of the problem. A definition of the STANDBY/TIMER lamp flash indicators is listed in the instruction manual for the user's knowledge and reference. If an error symptom cannot be reproduced, the remote commander can be used to review the failure occurrence data stored in memory to reveal past problems and how often these problems occur.

1. DIAGNOSTIC TEST INDICATORS

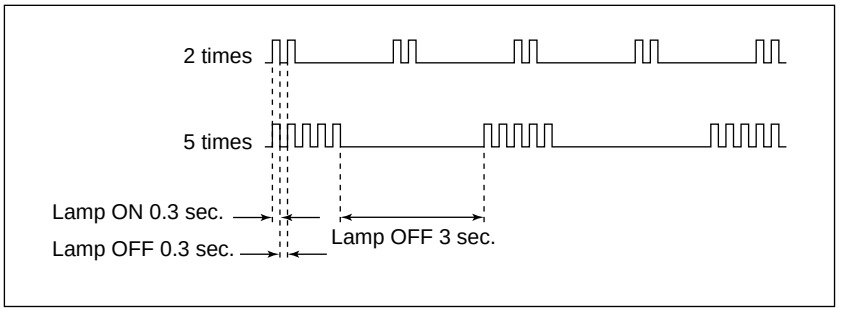
When an errors occurs, the STANDBY/TIMER lamp will flash a set number of times to indicate the possible cause of the problem. If there is more than one error, the lamp will identify the first of the problem areas.

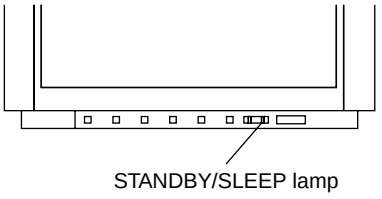
Result for all of the following diagnostic items are displayed on screen. No error has occured if the screen displays a "0".

Diagnostic Item Description	No. of times STANDBY/TIMER lamp flashes	Self-diagnostic display/Diagnostic result	Probable Cause Location	Detected Symptoms
• Power does not turn on	Does not light	—	• Power cord is not plugged in. • Fuse is burned out F4601 (F)	• Power does not come on. • No power is supplied to the TV. • AC power supply is faulty.
• +B overcurrent (OCP) or overvoltage (OVP) • Vertical deflection stopped • Horizontal deflection overdrive	2 times	002:000 or 002:001~255 003:001~255 004:001~255 at the same time	• H.OUT Q511 is shorted. (A board) • IC701 is shorted. (C board) • -13V is not supplied. (A board) • IC 503 faulty (A board)	• Power does not come on. • Load on power line is shorted. • Has entered standby state after horizontal raster. • Vertical deflection pulse is stopped. • Power line is shorted or power supply is stopped.
• White balance failure (no PICTURE)	5 times	005:000 or 005:001~225	• G2 is improperly adjusted. (Note 2) • CRT problem. • Video OUT IC701 is faulty. (C board) • IC301 is faulty. (A board) • No connection A board to C board.	• No raster is generated. • CRT cathode current detection reference pulse output is small.
• Micro reset	—	101:00 or 101:001~225	• Discharge CRT (C Board) • Static discharge • External noise	• Power is shut down shortly, after this return back to normal. • Detect Micro latch up.

Note 1: If a + B overcurrent is detected, stoppage of the vertical deflection is detected simultaneously.
The symptom that is diagnosed first by the microcontroller is displayed on the screen.
Note 2: Refer to screen (G2) Adjustment in section 3-4 of this manual.

2. DISPLAY OF STANDBY/TIMER LIGHT FLASH COUNT





Diagnostic Item	Flash Count*
+B overcurrent/overvoltage Vertical deflection stopped	2 times
White balance failure	5 times

* One flash count is not used for self-diagnostic.

3. STOPPING THE STANDBY/TIMER FLASH

Turn off the power switch on the TV main unit or unplug the power cord from the outlet to stop the STANDBY/TIMER lamp from flashing.

4. SELF-DIAGNOSTIC SCREEN DISPLAY

For errors with symptoms such as “power sometimes shuts off” or “screen sometimes goes out” that cannot be confirmed, it is possible to bring up past occurances of failure for confirmation on the screen:

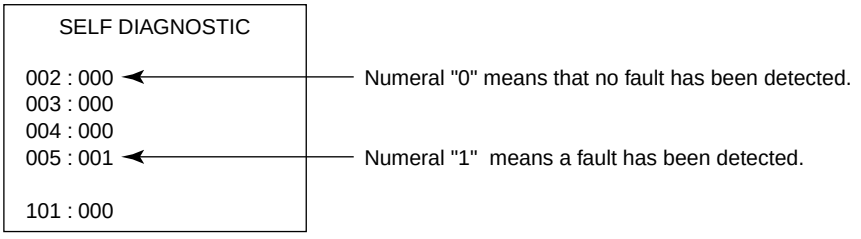
[To Bring Up Screen Test]
In standby mode, press buttons on the remote commander sequentially in rapid succession as shown below:

Screen display ➡ channel 5 ➡ Sound volume - ➡ Power ON

⇧

Note that this differs from entering the service mode (mode volume +).

Self-Diagnosis screen display


SELF DIAGNOSTIC
002 : 000
003 : 000
004 : 000
005 : 001
101 : 000
Numeral "0" means that no fault has been detected.
Numeral "1" means a fault has been detected.

5. HANDLING OF SELF-DIAGNOSTIC SCREEN DISPLAY

Since the diagnostic results displayed on the screen are not automatically cleared, always check the self-diagnostic screen during repairs. When you have completed the repairs, clear the result display to “0”.

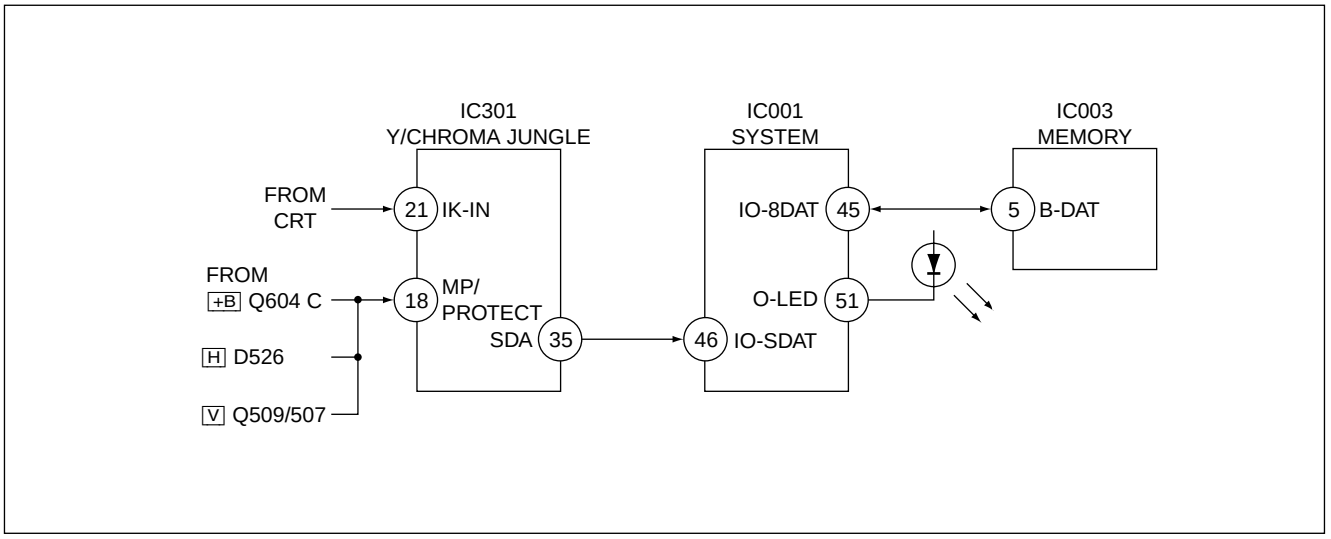
Unless the result display is cleared to “0”, the self-diagnostic function will not be able to detect subsequent faults after completion of the repairs.

[Clearing the result display]
To clear the result display to “0”, press buttons on the remote commander sequentially as shown below when the diagnostic screen is being displayed.

Channel 8 ➡ 0

[Quitting Self-diagnostic screen]
To quit the entire self-diagnostic screen, turn off the power switch on the remote commander or the main unit.

6. SELF-DIAGNOSTIC CIRCUIT



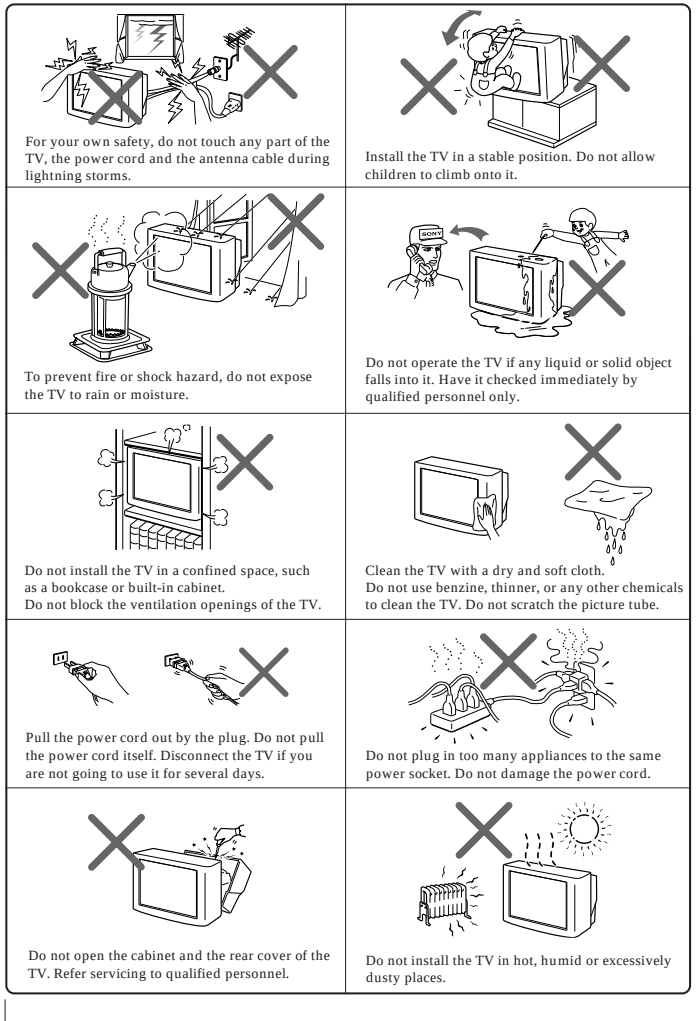
+B overcurrent (OCP)	Occurs when an overcurrent on the +B(135) line is detected by Q604. If Q604 go to ON and the voltage to pin 18 of IC301 should go down when V.SYNC is more than seven verticals in a period, the unit will automatically turn off.
Vertical deflection stopped	Occurs when an absence of the vertical deflection pulse is detected by Q509 and IC001 shut down the power supply.
Vertical deflection overcurrent	Occurs when an overcurrent on V drive line is detected by Q507. Power supply will be shut down when detect this by IC001.
White balance failure	If the RGB levels* do not balance or become low level within 5 seconds, this error will be detected by IC301. TV will stay on, but there will be no picture. * (Refers to the RGB levels of the AKB detection Ref pulse that detects IK.)

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

SECTION 1
GENERAL

WARNING

- Dangerously high voltages are present inside the TV.
- Operate the TV only between 110 – 240 V AC.



For your own safety, do not touch any part of the TV, the power cord and the antenna cable during lightning storms.

Install the TV in a stable position. Do not allow children to climb onto it.

To prevent fire or shock hazard, do not expose the TV to rain or moisture.

Do not operate the TV if any liquid or solid object falls into it. Have it checked immediately by qualified personnel only.

Do not install the TV in a confined space, such as a bookcase or built-in cabinet.
Do not block the ventilation openings of the TV.

Clean the TV with a dry and soft cloth.
Do not use benzine, thinner, or any other chemicals to clean the TV. Do not scratch the picture tube.

Pull the power cord out by the plug. Do not pull the power cord itself. Disconnect the TV if you are not going to use it for several days.

Do not plug in too many appliances to the same power socket. Do not damage the power cord.

Do not open the cabinet and the rear cover of the TV. Refer servicing to qualified personnel.

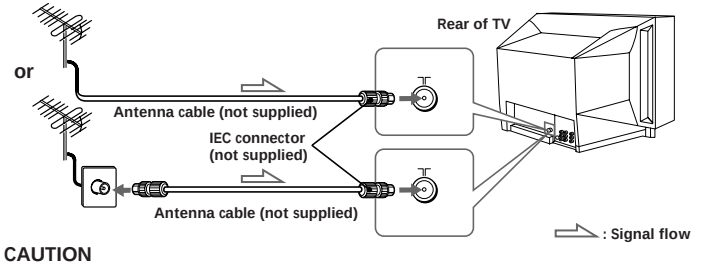
Do not install the TV in hot, humid or excessively dusty places.

Getting Started

Step 1

Connect the antenna

If you wish to connect a VCR, see the “Connecting a VCR” diagram below.

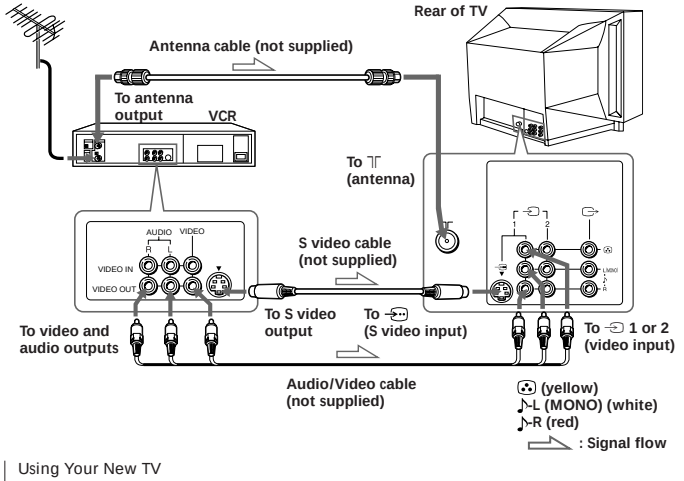


CAUTION

Do not connect the power cord until you have completed making all other connections; otherwise a minimum leakage current might flow through the antenna and other terminals to ground.

Connecting a VCR

To watch the video, see page 9.

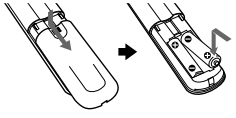


Notes

- If you connect a monaural VCR, connect the yellow plug to (the yellow jack) and the black plug to ♪-L (MONO) (the white jack).
- If you connect a VCR to the ⅂ (antenna) terminal, preset the signal output from the VCR to the program number 0 on the TV.
- If both (S video input) and 1 (video input) at the rear of your TV are input at the same time, the (S video input) is automatically selected. To view 1 (video input), disconnect the S video cable.
- When no signal is input to the connected video equipment, the TV screen becomes blue.

Step 2

Insert the batteries into the remote



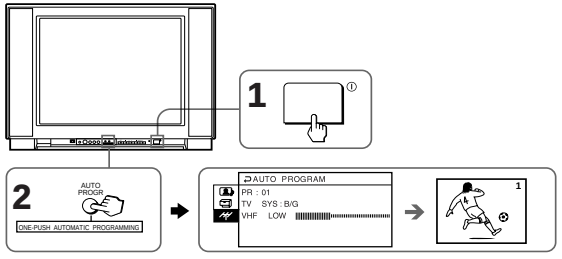
Note

- Do not use old batteries nor use different types of batteries together.

Step 3

Preset the channels automatically

Front of TV



Tips

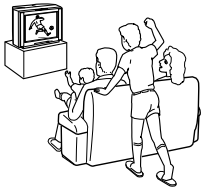
- If you want to stop the automatic channel presetting, press MENU twice.
- If your TV has preset an unwanted channel or cannot preset a particular channel, then preset your TV manually (see page 21 and 22).

Note

- During automatic channel presetting, your TV screen will indicate “B/G”, “I”, “D/K” or “M” for the TV system (TV SYS).

Now You Are Ready. . .

To watch your TV, see page 8.



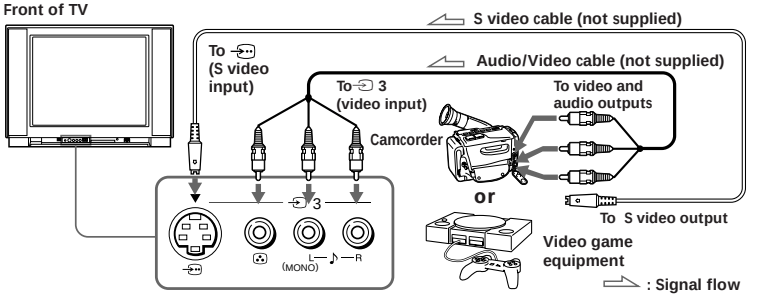
Connecting optional components

You can connect optional audio / video components, such as a VCR, multi disc player, camcorder, video game or stereo system.

To watch the picture of the connected equipment, see page 9.

Connecting a camcorder/video game equipment using the (video input) jacks

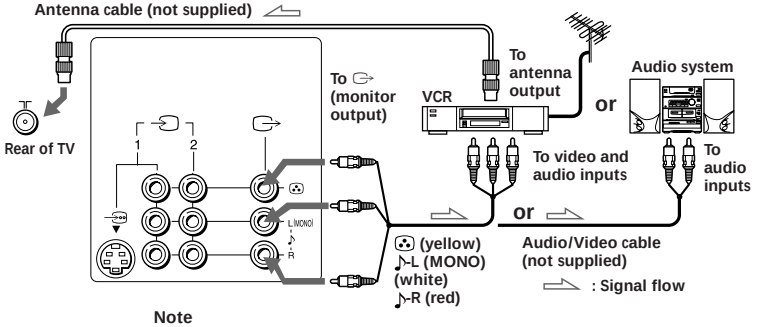
Front of TV



Notes

- You can also connect video equipment to the 1 or 2 (video input) jacks at the rear of your TV.
- If both (S video input) and 3 (video input) at the front of your TV are input at the same time, the (S video input) is automatically selected. To view 3 (video input), disconnect the S video cable.

Connecting audio/video equipment using the (monitor output) jacks



Note

- When connecting a monaural VCR, connect the yellow plug to (the yellow jack) and the black plug to ♪-L (MONO) (the white jack).

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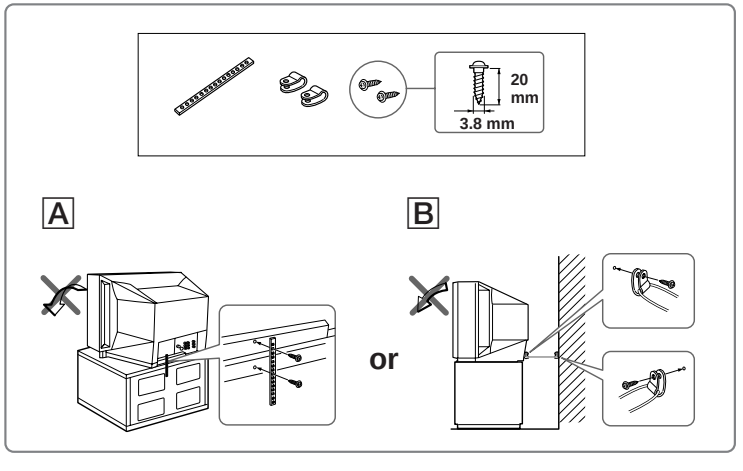
Securing the TV

To prevent the TV from falling, secure the TV using one of the following methods:

A With the supplied screws, attach the band to the TV stand and to the rear of the TV using the provided hole.

or

B Put the cord or chain through the clamps to secure the TV against a wall or pillar.

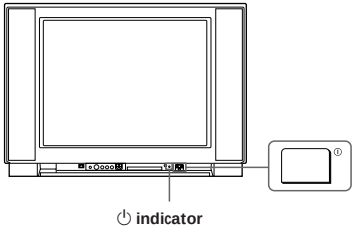


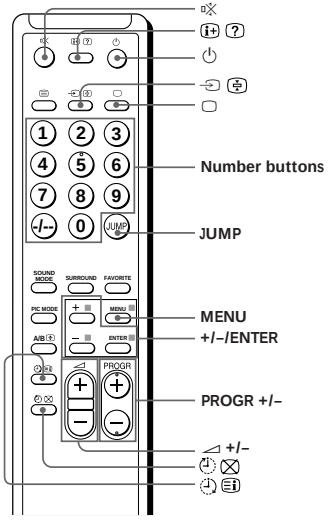
Note

• Use only the supplied screws. Use of other screws may damage the TV.

Watching the TV

This section explains functions used while watching TV. Most operations can be done using the remote.



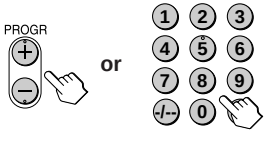


1 Press ⏻ to turn on the TV.

When the TV is in the standby mode (the ⏻ indicator on the TV is lit red), press ⏻ on the remote or PROGR + / – on the TV.

2 Press PROGR +/– or number buttons to select the TV program.

For double digit numbers, press -/--, then the number (e.g., for 25, press -/--, then 2 and 5).



3 Press ◿ +/– to adjust the volume.

Additional tasks

To	Do this
Turn off temporarily	Press ⏻. The ⏻ indicator on the TV lights up red.
Turn off completely	Press ⏻ on the TV.
Mute the sound	Press 🔇.
Watch the video input (VCR, camcorder, etc.)	Press INPUT to select "VIDEO 1", "VIDEO 2" and "VIDEO 3". To return to the TV program, press 📺.
Jump back to the previous channel	Press JUMP.
Display the on-screen information*	Press DISPLAY.

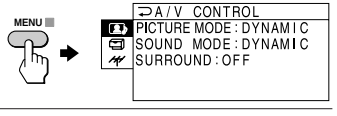
* The picture, sound, and either the program number or video mode are displayed. The on-screen display for the picture and sound information disappears after about 3 seconds.

Changing the menu language

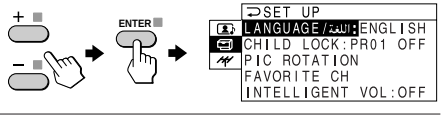
You can change the menu language as well as the on-screen language.

For details on how to use the menu, see "How to use the menu" on page 15.

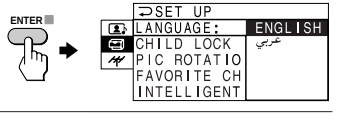
1 Press MENU.



2 Press + or – to select the SET UP icon (), then press ENTER.

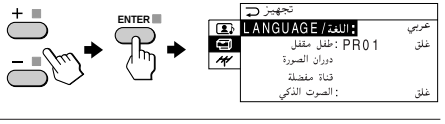


3 Make sure "LANGUAGE/ اللغة " is selected, then press ENTER.



4 Press + or – to select " عربي ", then press ENTER.

The menu language changes to Arabic.



To return to the normal screen

Press MENU.

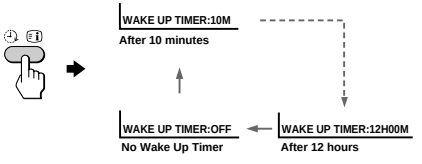
continued

Watching the TV (continued)

Setting the Wake Up timer

1 Press ◴ ⊟ until the desired period of time appears.

The Wake Up timer starts immediately after you have set it.



2 Select the TV program or video mode you want to display when you wake up.

3 Press ⏻ or set the Sleep timer if you want the TV to turn off automatically.

The ◴ indicator on the TV lights up orange.

To cancel the Wake Up timer

Press ◴ ⊟ until "WAKE UP TIMER: OFF" appears or turn off the TV's main power.

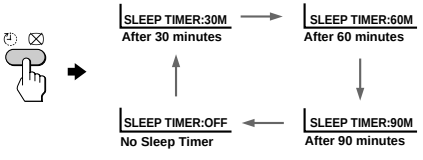
Note

- If no buttons or controls are pressed for more than two hours after the TV is turned on using the Wake Up timer, the TV automatically goes into the standby mode. To continue watching the TV, press any button or control on the TV or the remote.

Setting the Sleep timer

Press ◴ ⊠ until the desired period of time appears.

The Sleep timer starts immediately after you have set it.



To cancel the Sleep timer

Press ◴ ⊠ until "SLEEP TIMER: OFF" appears or turn the TV off.

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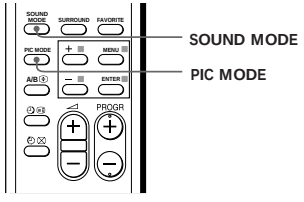
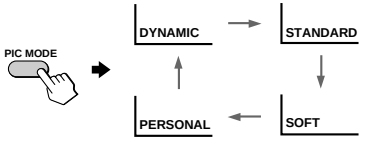
Selecting the picture and sound modes

You can select picture and sound modes and adjust the setting to your preference in PERSONAL option.



Selecting the picture mode

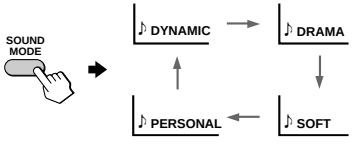
Press PIC MODE repeatedly until you get the desired picture mode.



Select	To
DYNAMIC	receive high contrast pictures.
STANDARD	receive normal contrast pictures.
SOFT	receive mild pictures.
PERSONAL	receive the last adjusted picture setting from the ADJUST option in the A / V CONTROL menu (see page 17).

Selecting the sound mode

Press SOUND MODE repeatedly until you get the desired sound mode.



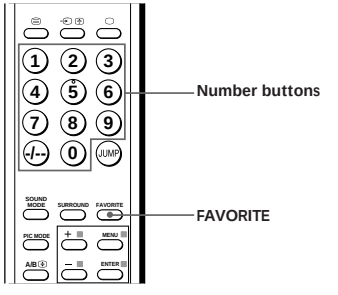
Select	To
DYNAMIC	listen to dynamic and clear sound that emphasizes the low and high tones.
DRAMA	listen to sound that emphasizes voice and high tones.
SOFT	receive soft sound.
PERSONAL	receive the last adjusted sound setting from the ADJUST option in the A / V CONTROL menu (see page 17).

Tip

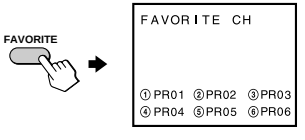
- You can also set the picture and sound modes using the menu (see “Changing the A / V CONTROL setting” on page 16).

Viewing your favorite channels

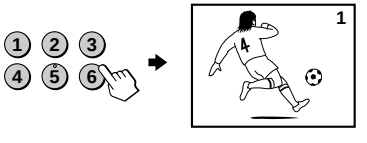
You can display and select six of your favorite channels directly from your TV screen.



1 Press FAVORITE.



2 Press the number button from 1 to 6 to select the desired channel.

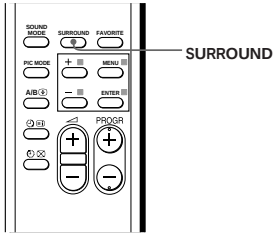


Tip

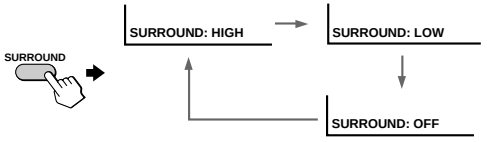
- To program your favorite channels, see “Programming your favorite channels” on page 18.

Listening with surround sound

The surround feature enables you to enjoy the sound effects of a concert hall or movie theater.



Press SURROUND repeatedly until you receive the desired surround sound.



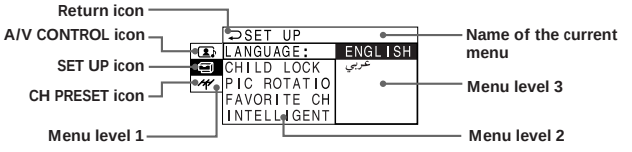
Select	To
HIGH	listen to sound that spreads out over a large area, giving the feeling of being at a concert hall.
LOW	listen to the sound that gives the feeling of being at a live concert.
OFF	turn off the surround sound.

The surround of your TV is categorized as TruSurround.

TruSurround™ is a trademark of SRS Labs, Inc. SRS and the SRS symbol are registered trademarks of SRS Labs, Inc. in the United States and selected foreign countries. SRS and TruSurround are incorporated under license from SRS Labs, Inc. and are protected under United States Patent Nos. 4,748,669 and 4,841,572 with numerous additional issued and pending foreign patents.

Introducing the menu system

The MENU button lets you open a menu and change the settings of your TV. Here's an overview of the menu system.

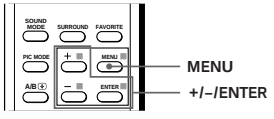


Level 1	Level 2	Level 3/Function
A/V CONTROL	PICTURE MODE	Select the picture mode. DYNAMIC → STANDARD → SOFT → PERSONAL → ADJUST
	ADJUST	Adjust the PERSONAL option. PICTURE→COLOR→BRIGHT→HUE→SHARP
	SOUND MODE	Select the sound mode. DYNAMIC → DRAMA → SOFT → PERSONAL → ADJUST
	ADJUST	Adjust the PERSONAL option. BASS → TREBLE → BALANCE → BBE *
	SURROUND	Select the surround mode. HIGH → LOW → OFF
SET UP	LANGUAGE/ اللغة	Change the menu language. ENGLISH - عربي (Arabic)
	CHILD LOCK	Lock the channel independently.
	PIC ROTATION	Adjust the picture position.
	FAVORITE CH	Program favorite channels.
	INTELLIGENT VOL	Adjust volume automatically.
CH PRESET	AUTO PROGRAM	Preset channels automatically.
	MANUAL PROGRAM	Preset channels manually.
	SKIP	Skip unwanted or unused program positions.
	TV SYS	Select the TV system. B/G → I → D/K → M
	COL SYS	Select the color system. AUTO→PAL→SECAM→NTSC3.58→NTSC4.43

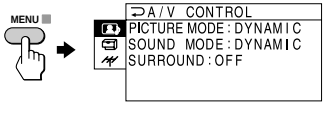
* The BBE is manufactured by Sony Corporation under license from BBE Sound, Inc. It is covered by U.S. Patent No. 4,638,258 and No. 4,482,866. The word "BBE" and the BBE symbol are the trademarks of BBE Sound, Inc.

How to use the menu

You can use the buttons on the remote and on the TV as well to display the menu and adjust the settings.



1 Press MENU to display the menu.



2 Press + or – to select the desired item.

3 Press ENTER to confirm your option and go to the next menu level.

Other menu operations

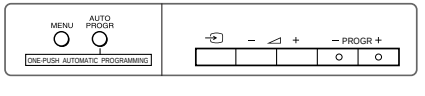
To	Press
Adjust the setting value	+/–
Return to the previous menu level*	ENTER
Cancel the menu	MENU

* To return from Menu Level 2 to Level 1, press + or – to select the return icon ( ), then press ENTER.

Tips

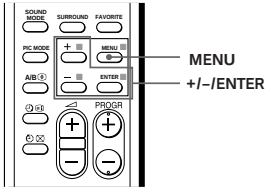
- If more than 60 seconds elapse between entries, the menu screen disappears.
- You can also use the buttons on the TV for menu operations. +/– work as + /– on the remote and works as ENTER on the remote.

Front of TV



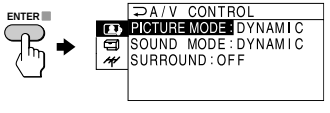
Changing the A/V CONTROL setting

The A / V CONTROL menu allows you to change the picture and sound settings.

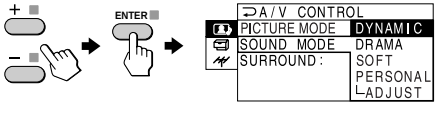


1 Press MENU.

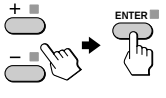
2 Make sure the A/V CONTROL icon ( ) is selected, then press ENTER.



3 Press + or – to select either PICTURE MODE, SOUND MODE or SURROUND, then press ENTER.



4 Press + or – to select the desired option, then press ENTER.



For	Select
PICTURE MODE	either DYNAMIC, STANDARD, SOFT, PERSONAL*, or ADJUST.
SOUND MODE	either DYNAMIC, DRAMA, SOFT, PERSONAL*, or ADJUST.
SURROUND	either HIGH, LOW, or OFF.

* When the PERSONAL mode is selected, the last adjusted picture and sound settings from the ADJUST option are received (see next page).

Tip

- For details on the options under “PICTURE MODE”, “SOUND MODE” and “SURROUND”, see page 11 and 13 respectively.

To return to the normal screen

Press MENU.

Adjusting the ADJUST options under PICTURE MODE

1 Press + or – to select the desired item (e.g., COLOR), then press ENTER.

2 Adjust the value according to the following table, then press ENTER.

For	Press – to	Press + to
PICTURE	decrease picture contrast	increase picture contrast
COLOR	decrease color intensity	increase color intensity
BRIGHT	darken the picture	brighten the picture
HUE*	increase red picture tones	increase green picture tones
SHARP	soften the picture	sharpen the picture

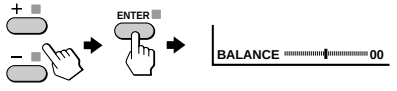
* You can adjust HUE for the NTSC color system only.

3 Repeat the above steps to adjust other items.

The adjusted settings will be received when you select PERSONAL.

Adjusting the ADJUST options under SOUND MODE

1 Press + or – to select the desired item (e.g., BALANCE), then press ENTER.



2 Adjust the value according to the following table, then press ENTER.

For	Press – to	Press + to
BASS	decrease the bass	increase the bass
TREBLE	decrease the treble	increase the treble
BALANCE	increase the left speaker's volume	increase the right speaker's volume
BBE	select "HIGH" for higher enhancement of sound clarity; select "LOW" for lower enhancement of sound clarity; select "OFF" to turn off the BBE sound	

3 Repeat the above steps to adjust other items.

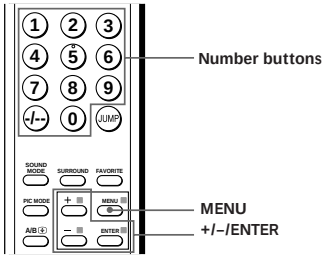
The adjusted settings will be received when you select PERSONAL.

Tip

- For details on the menu system and how to use the menu, refer to "Introducing the menu system" on page 14 and "How to use the menu" on page 15.

Changing the SET UP setting

The SET UP menu allows you to change the menu language, lock channels, adjust the picture position, program your favorite channels and adjust volume automatically.

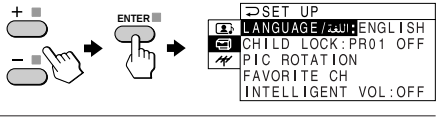


Programming your favorite channels

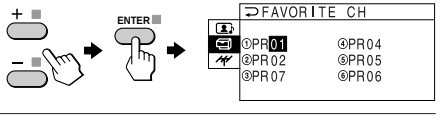
The FAVORITE CH feature enables you to program up to six channels for direct selection.

1 Press MENU.

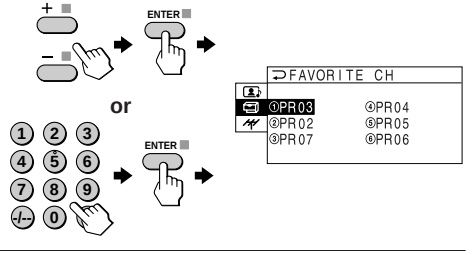
2 Press + or – to select the SET UP icon (), then press ENTER.



3 Press + or – to select FAVORITE CH, then press ENTER twice.



4 Press + or –, or number buttons to program the desired channel (e.g., PR03), then press ENTER.



5 To continue programming other favorite channels, press + or – and then press ENTER. After that, repeat step 4.

To return to the normal screen

Press MENU.

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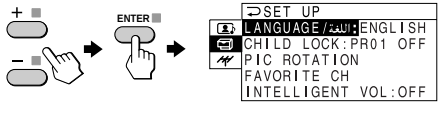
RM-954

Using the CHILD LOCK feature

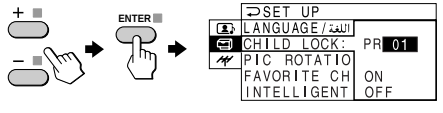
You can prevent your children from watching certain channels by using the CHILD LOCK feature.

1 Press MENU.

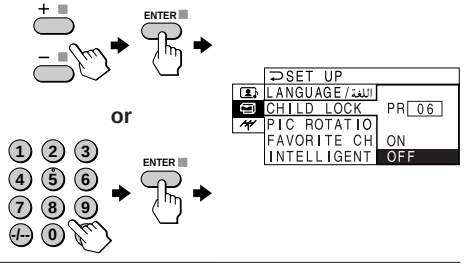
2 Press + or – to select the SET UP icon (), then press ENTER.



3 Press + or – to select CHILD LOCK, then press ENTER.



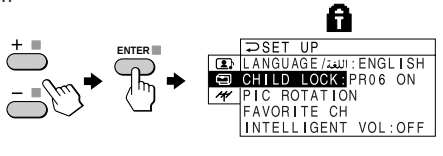
4 Press + or –, or number buttons to select the desired channel, then press ENTER.



5 Press + or – to select ON, then press ENTER.

The lock symbol ( ) appears on the screen.

To unlock the channel, select OFF.



6 To continue locking other channels, press ENTER and then repeat step 4 to 5.

To return to the normal screen

Press MENU.

Note

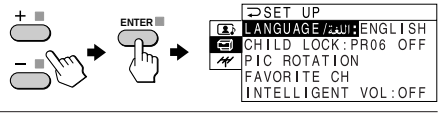
- If you preset a locked channel, that particular channel will be unlocked automatically (see page 21).

continued

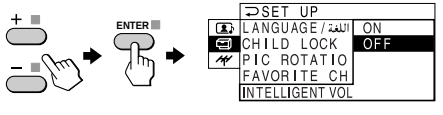
Changing other SET UP menu options

1 Press MENU.

2 Press + or – to select the SET UP icon (), then press ENTER.



3 Press + or – to select the desired option (e.g., INTELLIGENT VOL), then press ENTER.



Select	To
LANGUAGE	Change the menu language (see “Changing the menu language” on page 9).
CHILD LOCK	Prevent children from watching certain channels (see “Using the CHILD LOCK feature” on page 19).
PIC ROTATION	Adjust the picture position when it is not aligned to the TV screen. Press + or – to adjust the picture position, then press ENTER.
FAVORITE CH	Program channels for direct selection (see “Programming your favorite channels” on page 18).
INTELLIGENT VOL	Adjust the volume of all TV programs automatically. Press + or – to select “ON”, then press ENTER. To turn off the “INTELLIGENT VOL” function, select “OFF”, then press ENTER.

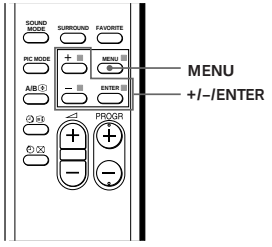
To return to the normal screen

Press MENU.

Tip

- For details on the menu system and how to use the menu, refer to “Introducing the menu system” on page 14 and “How to use the menu” on page 15.

Changing the Channel Preset (CH PRESET) setting

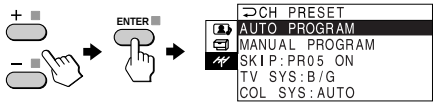


The CH PRESET menu allows you to adjust the setup of your TV. For example, you can receive a channel with a weak signal that fails to be tuned in by automatic presetting.

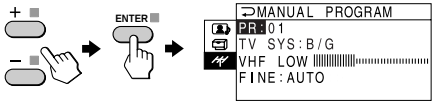
Presetting channels manually

1 Press MENU.

2 Press + or – to select the CH PRESET icon (), then press ENTER.

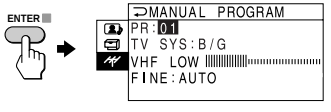


3 Press + or – to select MANUAL PROGRAM, then press ENTER.

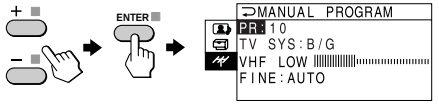


4 Select the program number to which you want to preset a channel.

(1) Make sure "PR" is selected , then press ENTER.



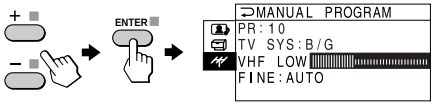
(2) Press + or – until the program number you want to preset (e.g., program number 10) appears on the menu, then press ENTER.



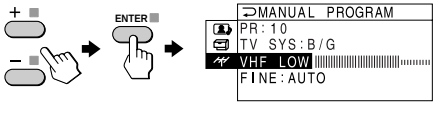
continued

5 Select the desired channel.

(1) Press + or – to select either VHF LOW, VHF HIGH or UHF, then press ENTER.

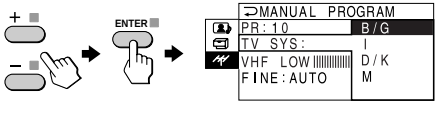


(2) Press + or – until the desired channel picture appears on the TV screen, then press ENTER.

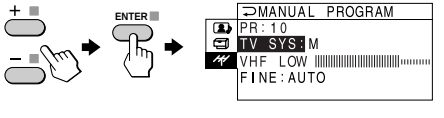


6 If the sound of the desired channel is abnormal, select the appropriate TV system.

(1) Press + or – to select TV SYS, then press ENTER.

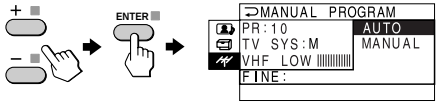


(2) Press + or – until the sound becomes normal (e.g., M), then press ENTER.

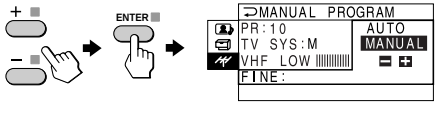


7 If you are not satisfied with the picture and sound quality, you may improve them by using fine tuning.

(1) Press + or – to select FINE, then press ENTER.

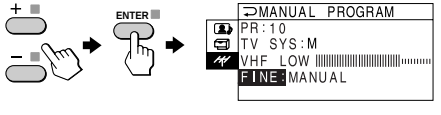


(2) Press + or – to select MANUAL, then press ENTER.



(3) Press + or – until the picture and sound quality are optimal, then press ENTER.

The + or – icon on the menu flashes while tuning.



To return to the normal screen

Press MENU.

Note

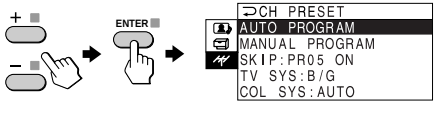
- The TV system (TV SYS) and the fine tuning (FINE) settings are memorized for each program number.

Changing the Channel Preset (CH PRESET) setting (continued)

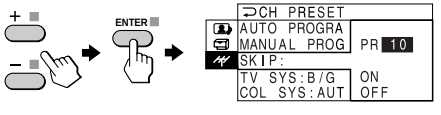
Changing other CH PRESET menu options

1 Press MENU.

2 Press + or – to select the CH PRESET icon (), then press ENTER.



3 Press + or – to select the desired option (e.g., SKIP), then press ENTER.



Select	To
AUTO PROGRAM	preset channels automatically.
MANUAL PROGRAM	preset channels manually. See “Presetting channels manually” on page 21 and 22.
TV SYS	select the TV system. See “Presetting channels manually” on page 21 and 22.
COL SYS	select the color system. Normally, set this to “AUTO”.
SKIP	skip unwanted or unused program numbers. 1 Press + or – until the unused or unwanted program number appears, then press ENTER. 2 Press + or – to select “ON”, then press ENTER. To put the skipped program number back on, select “OFF”, then press ENTER.

Tip

- For details on the menu system and how to use the menu, refer to “Introducing the menu system” on page 14 and “How to use the menu” on page 15.

Note

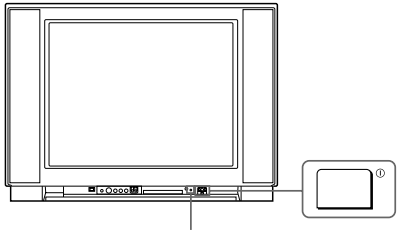
- If you preset a locked channel, that particular channel will be unlocked automatically (see page 19).

continued

Self-diagnosis function

Your TV is equipped with a self-diagnosis function. If there is a problem with your TV, the ⏻ indicator flashes red. The number of times the ⏻ indicator flashes indicates the possible causes.

Front of TV



1 Check that the ⏻ indicator flashes red a number of times between 3-second intervals.

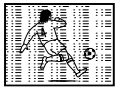
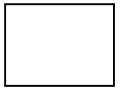
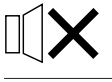
2 Count the number of times the ⏻ indicator flashes.

3 Press ⏽ (main power) to turn off your TV.

4 Inform your nearest Sony service center about the number of times the ⏻ indicator flashes.
Be sure to note the model name and serial number located on the rear of your TV.

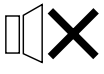
Troubleshooting

If you find any problem while viewing your TV, please check the following guide. If any problem persists, contact your Sony dealer .

Symptom	Solutions	Possible cause
Snowy picture  Noisy sound	• Check the antenna cable and connection on the TV, VCR and on the wall. (page 4)	• Connection is loose or the cable is damaged.
	• Display the CH PRESET menu and select “MANUAL PROGRAM” to preset the channel again. (page 21)	• Channel presetting is inappropriate or incomplete.
	• Check the antenna type (VHF/UHF). Contact a Sony dealer for advice.	• The antenna type is inappropriate.
	• Adjust the antenna direction. Contact a Sony dealer for advice.	• The antenna direction is inappropriate.
	• Try using a booster.	• Signal transmission is low.
Distorted picture Noisy sound	• Turn off or disconnect the booster if it is in use.	• Broadcast signals are too strong.
Good picture Noisy sound	• If the sound of some channels are noisy, select the channel, then display the CH PRESET menu and select the appropriate TV system (TV SYS). (page 22)	• The TV system (TV SYS) setting is inappropriate.
No picture  No sound 	• Check the power cord, antenna and the VCR connections.	• The power cord, antenna or VCR is not connected.
	• Press ⏻ (power). • Press ⏽ (main power) on the TV to turn off the TV for about five seconds, then turn it on again.	• The TV is not turned on.

KV-XF25M50/XF25M80
RM-954

Troubleshooting (continued)

Symptom	Solutions	Possible cause
Good picture **No sound** 	• Press + to increase the volume level.	• The volume level is too low.
	• Press to cancel the muting.	• The sound is muted.
Dotted lines or stripes 	• Do not use a hair dryer or other equipment near the TV. • Adjust the antenna direction for minimum interference. Contact a Sony dealer for advice.	• There is local interference from cars, neon signs, hair dryers, power generators, etc.
Double images or "ghosts" 	• Use a highly directional antenna.	• Broadcast signals are reflected by nearby mountains or buildings.
	• Adjust the antenna direction. Contact a Sony dealer for advice.	• The antenna direction is inappropriate.
	• Turn off or disconnect the booster if it is in use.	• Use of a booster is inappropriate.
No color 	• Display the A / V CONTROL menu and select "ADJUST" of PICTURE MODE, then adjust the COLOR level. (pages 16 and 17)	• The color level setting is too low.
	• Display the CH PRESET menu and check the color system (COL SYS) setting (usually set this to AUTO). (page 24)	• The color system setting is inappropriate.
	• Adjust the antenna direction. Contact a Sony dealer for advice.	• The antenna direction is inappropriate.
Abnormal color patches 	• Keep external speakers or other electrical equipment away from the TV. Do not move the TV while the TV is turned on. Press ⏻ (main power) on the TV to turn off the TV for about five minutes, then turn it on again.	• The magnetic disturbance from external speakers or other equipment, or the direction of the earth's magnetic field may affect the TV.

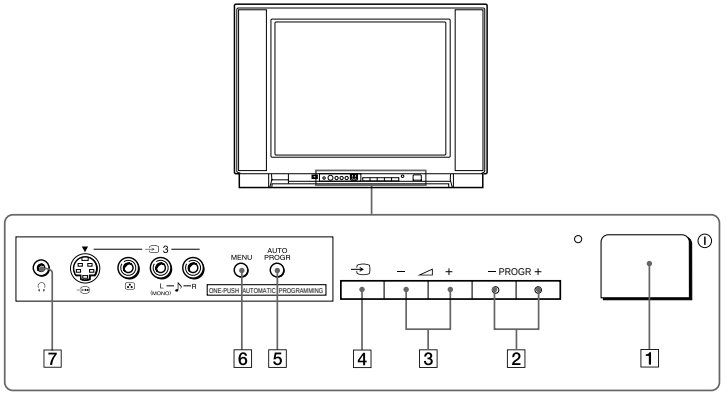
Symptom	Solutions	Possible cause
Picture slant 	• Display the SET UP menu and adjust "PIC ROTATION" so that the picture is aligned to the TV screen. (page 20)	• The terrestrial magnetism affects your TV set.
The ⏻ indicator on your TV flashes red a number of times between 3-second intervals.	• Contact your nearest Sony service center. (page 25)	• Your TV may need service.
TV cabinet creaks.	—	• Changes in room temperature sometimes make the TV cabinet expand or contract, making a noise. This does not indicate a malfunction.
A "boom" sound is heard when the TV is turned on.	—	• The TV's demagnetizing function is working. This does not indicate a malfunction.

continued

Identifying parts and controls

Refer to the pages indicated in parentheses ( ) for details.

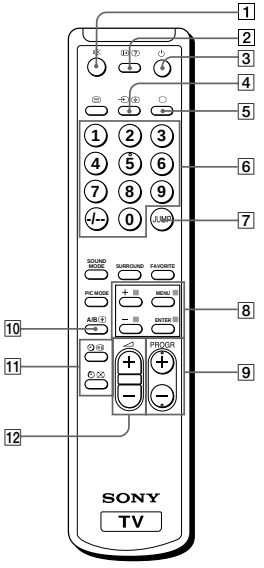
Front panel

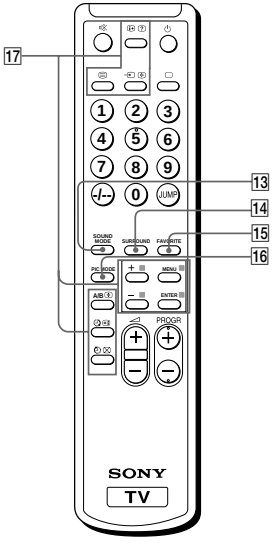


1 ⏻ (main power) button (8)
2 PROGR +/– (program) buttons (8)
3 +/– (volume) buttons (8)
4 (TV/video) button (9)
5 AUTO PROGR (program) button (5)
6 MENU button (15)
7 🎧 (headphone) jack

continued

Remote Control





1 (muting) button (9)
2 (display) button (9)
3 ⏻ (power) button (8)
4 (video) button (9)
5 (TV) button (9)
6 Number buttons (8)
7 JUMP button (9)
8 Menu operation buttons (15)
MENU button
+ or – buttons
ENTER button
9 PROGR +/– button (8)
10 A/B button
(not used for KV-XF29M80/XF29M50/XF25M80/XF25M50)
11 Timer setting buttons (10)
(wake up timer)
(sleep timer)
12 +/– (volume) buttons (8)

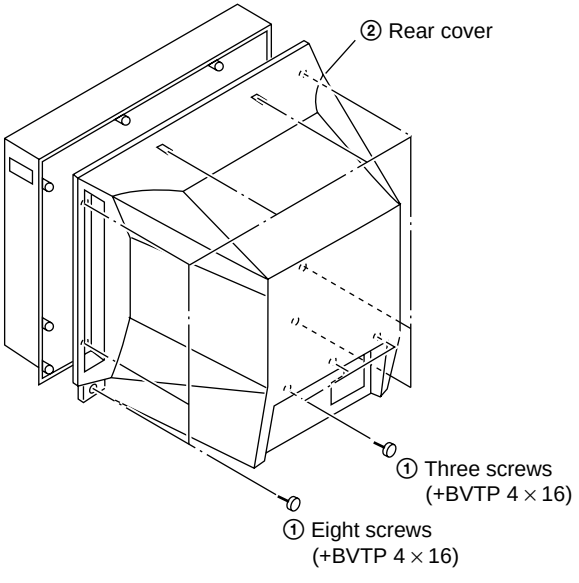
13 SOUND MODE button (11)
14 SURROUND button (13)
15 FAVORITE button (12)
16 PIC MODE button (11)
17 Teletext operation buttons
(not used for KV-XF29M80/XF29M50/XF25M80/XF25M50)
(text) (enlarge)
(reveal) (hold)
(index) (text clear)
(FASTEXT: red, green, yellow, blue)

Names / symbols of buttons on the remote are indicated in different colors to represent the available functions.

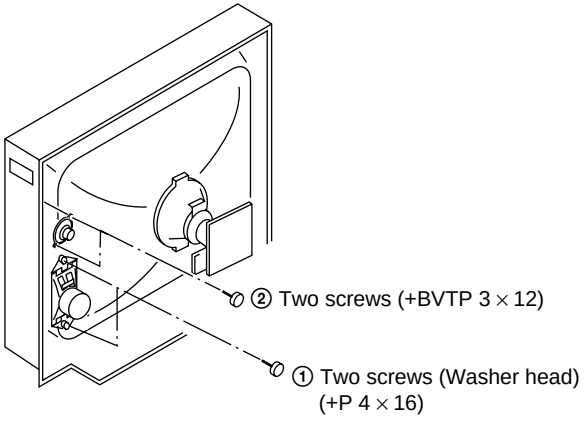
Label color	Button function
White	For general TV operations
Green	For Teletext operations

SECTION 2
DISASSEMBLY

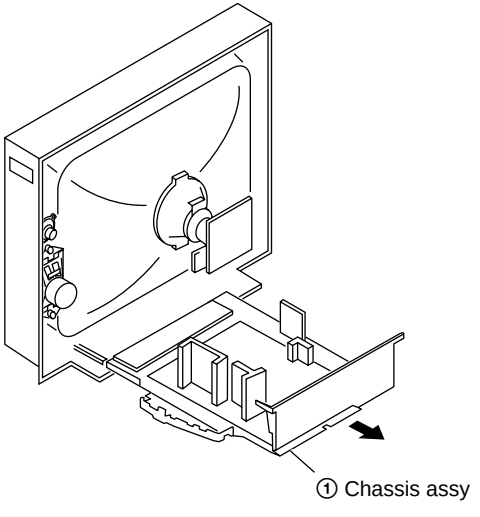
2-1. REAR COVER REMOVAL



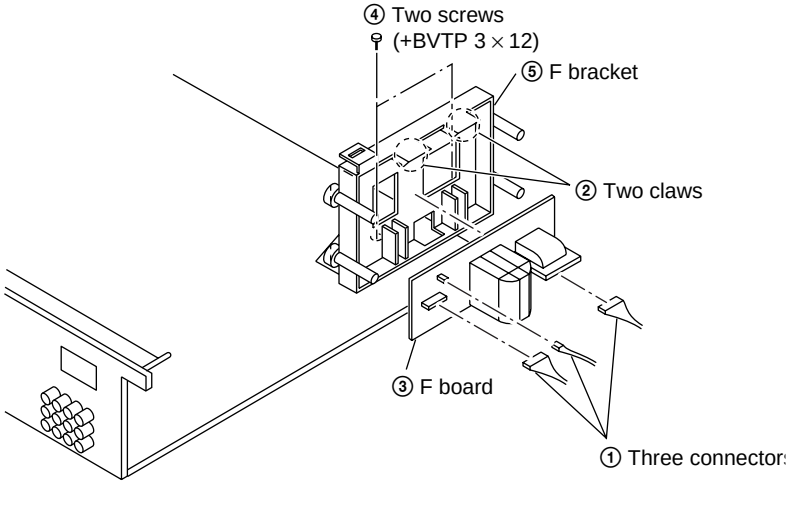
2-2. SPEAKER BRACKET REMOVAL



2-3. CHASSIS ASSY REMOVAL

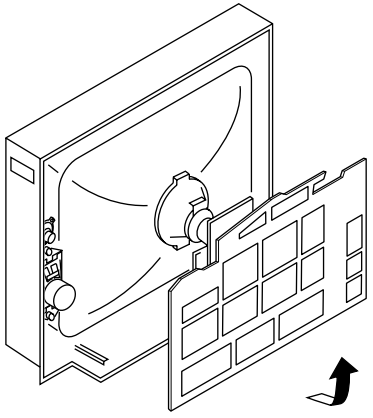


2-4. F BRACKET REMOVAL



2-5. SERVICE POSITION

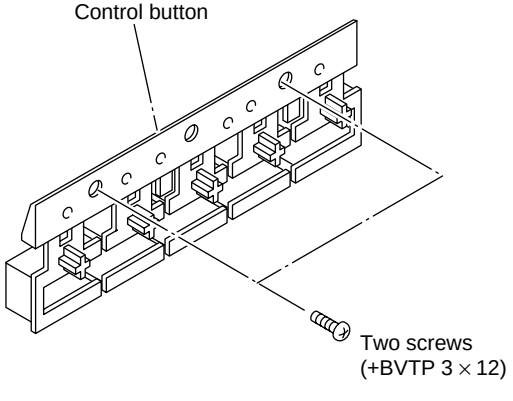
(Note: Remove F Bracket first.)



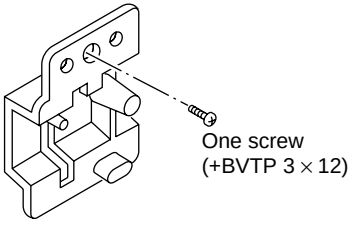
2-6. REPLACEMENT OF PARTS

For replacement of the Control Button and Light Guide, unscrew them, exchange with the new parts, and fix them with screws (+BVTP) respectively.

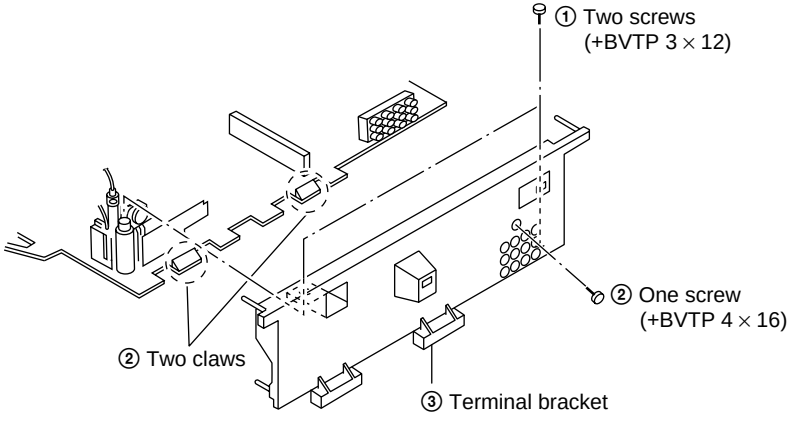
2-6-1. REPLACEMENT OF CONTROL BUTTON



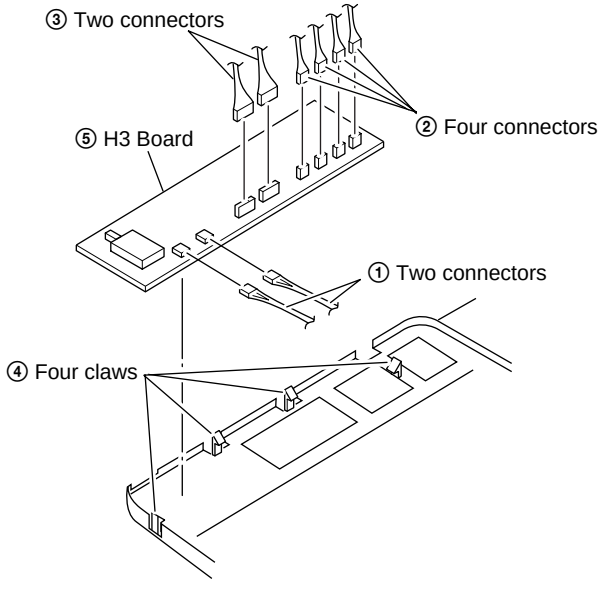
2-6-2. REPLACEMENT OF LIGHT GUIDE



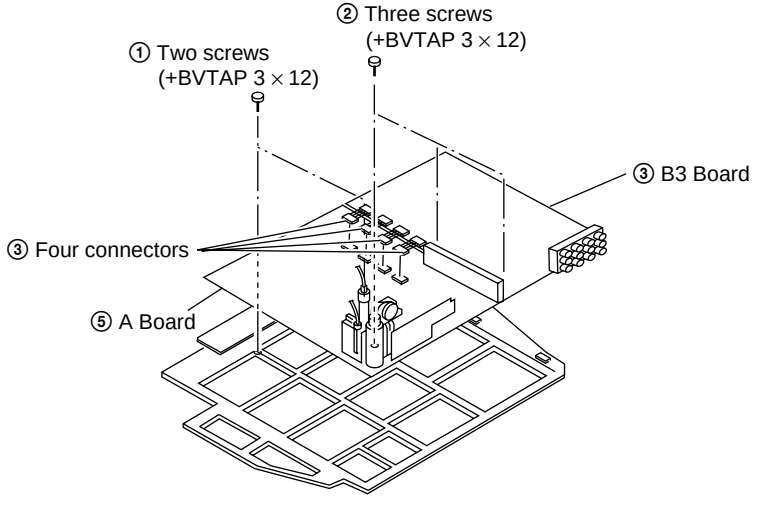
2-7. TERMINAL BRACKET REMOVAL



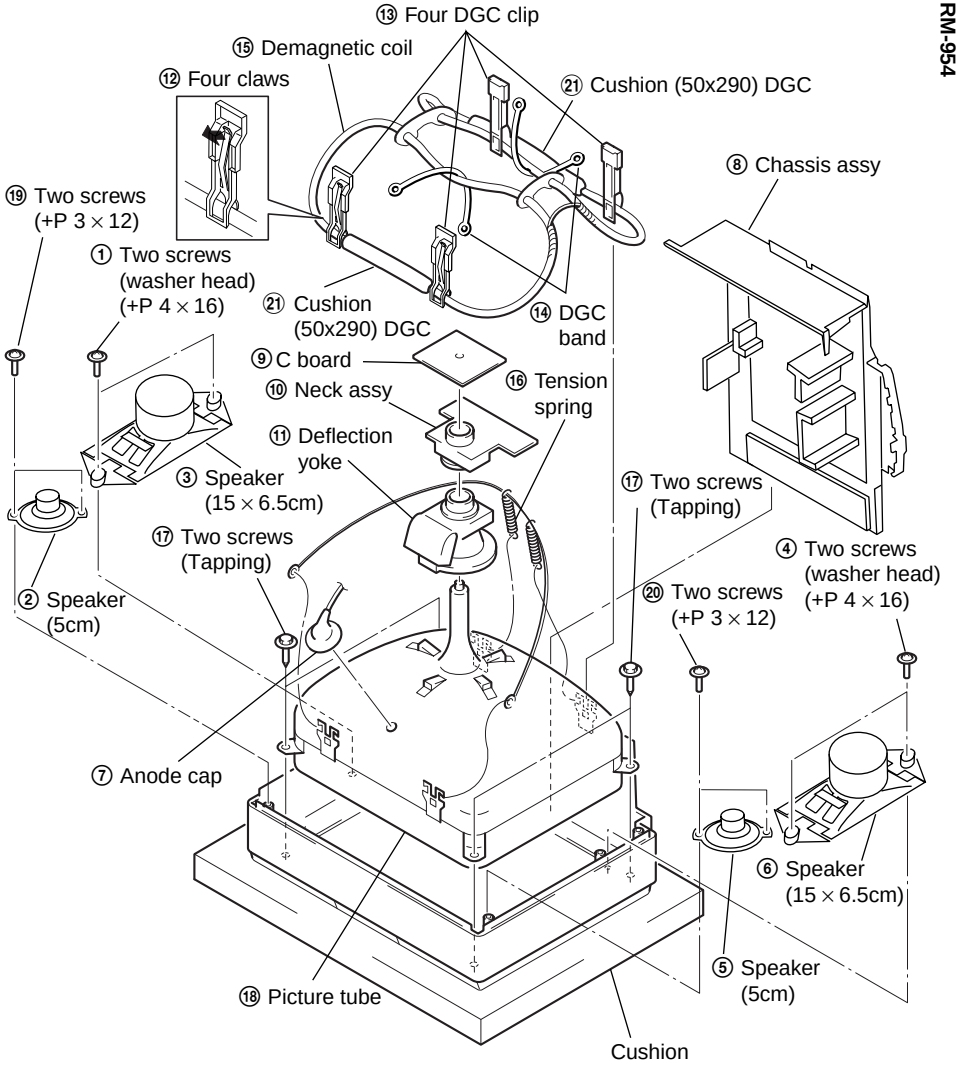
2-8. H3 BOARD REMOVAL



2-9. A AND B3 BOARDS REMOVAL



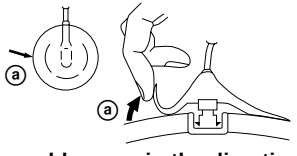
2-10. PICTURE TUBE REMOVAL



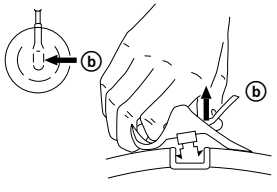
• REMOVAL OF ANODE-CAP

NOTE : After removing the anode, short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT.

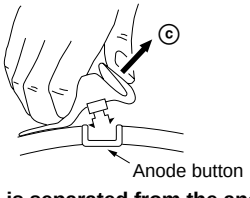
• REMOVING PROCEDURES



① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ.



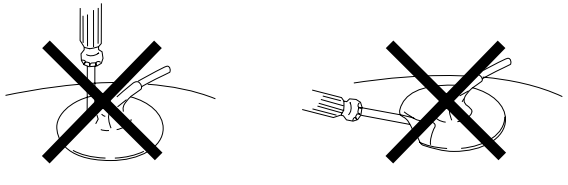
② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ.



③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow ⓒ.

• HOW TO HANDLE AN ANODE-CAP

① Do not damage the surface of anode-caps with sharp shaped objects.
② Do not press the rubber too hard so as not to damage the inside of anode-cap. A metal fitting called the shatter-hook terminal is built into the rubber.
③ Do not turn the foot of rubber over too hard. The shatter-hook terminal will stick out or damage the rubber.



SECTION 3
SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

Controls and switches should be set as follows unless otherwise noted:
PICTURE control ..... normal
BRIGHTNESS control ..... normal

Perform the adjustments in the following order :

1. Beam Landing
2. Convergence
3. Focus
4. White Balance

Note : Test Equipment Required.

1. Color-bar/Pattern Generator
2. Degausser
3. Oscilloscope

Preparation :

- In order to reduce the influence of geomagnetism on the set's picture tube, face it east or west.
- Switch on the set's power and degauss with the degausser.

3-1. BEAM LANDING

1. Input a white signal with the pattern generator.
   Contrast } normal
   Brightness }
2. Position neck assy as shown in Fig3-2.
3. Set the pattern generator raster signal to a green raster.
4. Move the deflection yoke to the rear and adjust with the purity control so that the green is at the center and the blue and the red take up equally sized areas on each side.
   (See Figures 3-1 through 3-4.)
5. Move the deflection yoke forward and adjust so that the entire screen is green. (See Figure 3-2.)
6. Switch the raster signal to blue, then to red and verify the condition.
7. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws and DY spacers.
8. If the beam does not land correctly in all the corners, use a magnet to adjust it.
   (See Figure 3-5.)

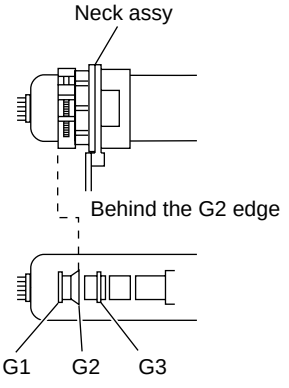


Fig. 3-1

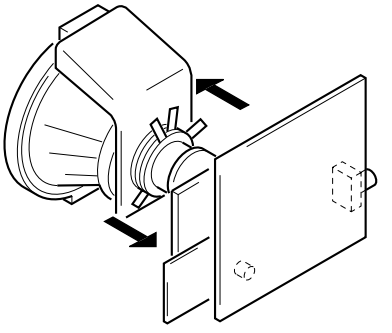


Fig. 3-2

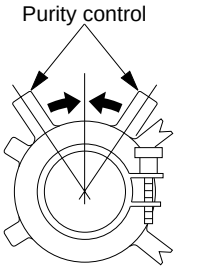


Fig. 3-3

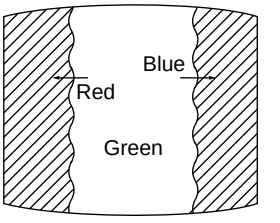


Fig. 3-4

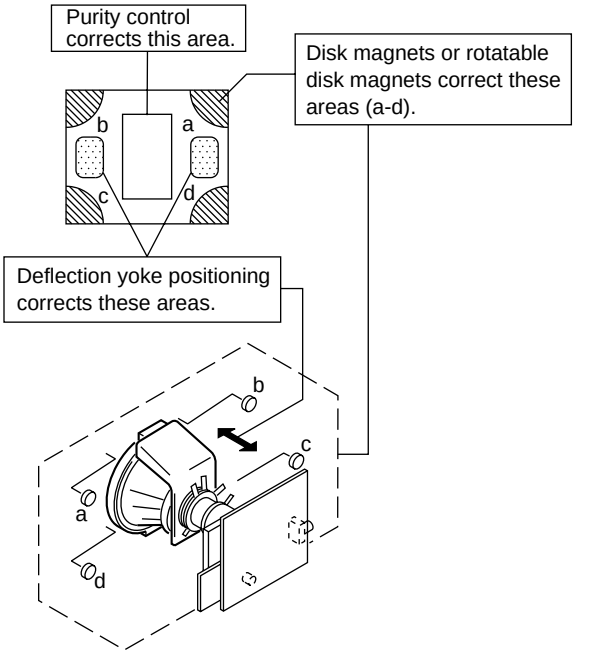


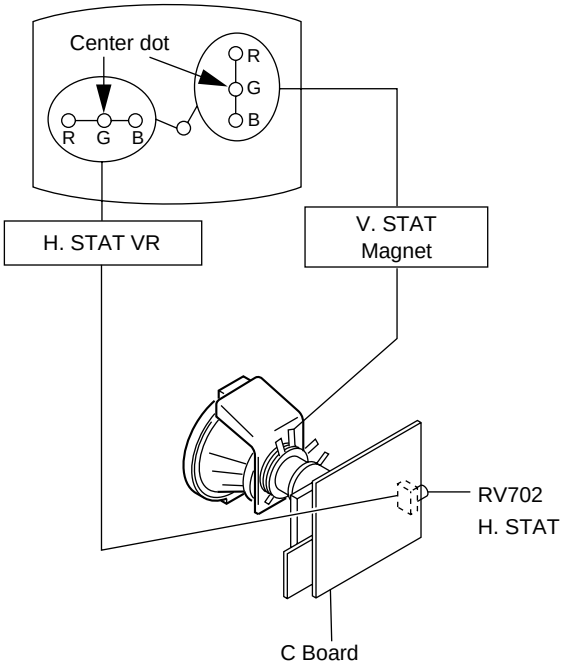
Fig. 3-5

3-2. CONVERGENCE

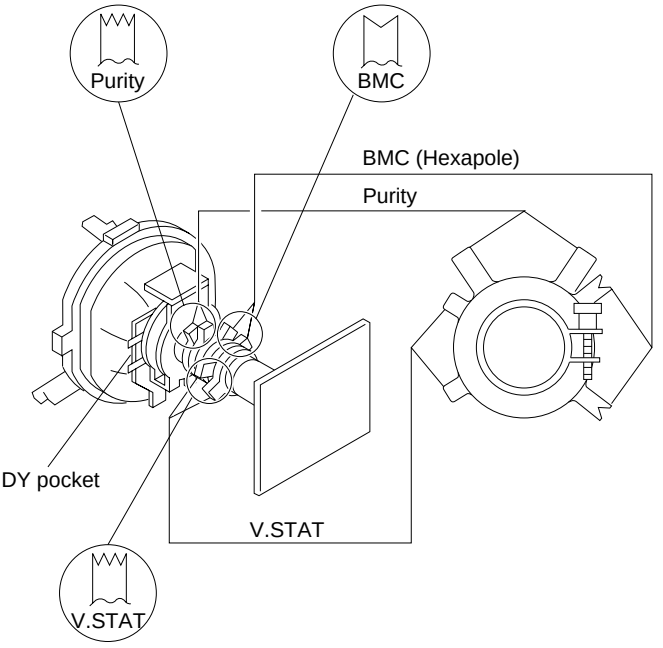
Preparation :

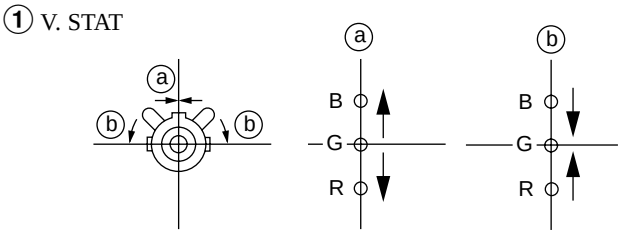
- Before starting this adjustment, adjust the focus, horizontal size and vertical size.
- Minimize the brightness setting.
- Provide dot pattern.

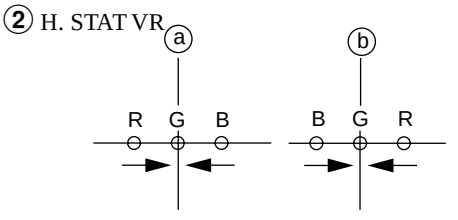
(1) Horizontal and Vertical Static Convergence

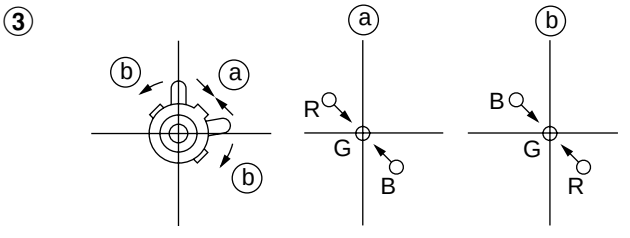


1. (Moving horizontally), adjust the H.STAT control so that the red, green and blue dots are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green and blue dots are on top of each other at the center of the screen.
3. If the H.STAT variable resistor cannot bring the red, green and blue dots together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V.STAT magnet in the manner given below.
   (In this case, the H.STAT variable resistor and the V.STAT magnet influence each other, so be sure to perform adjustments while tracking.)



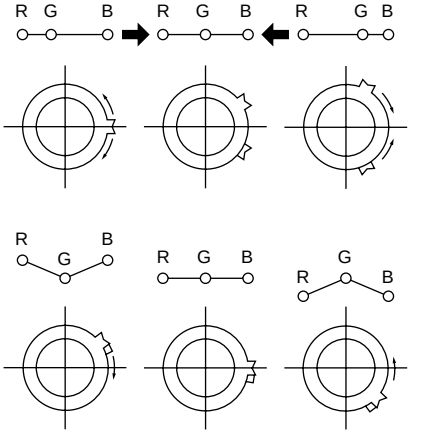


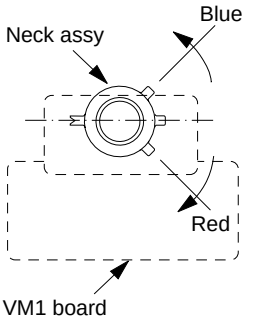


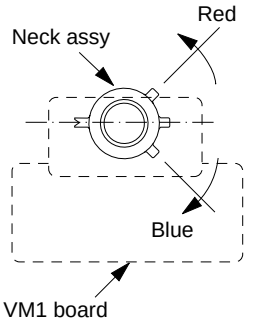


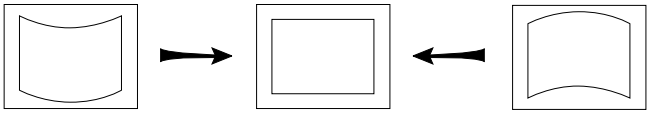
④ BMC (Hexapole) Magnet.

If the red, green and blue dots are not balanced or aligned, then use the BMC magnet to adjust in the manner described below.









⑤ Y separation axis correction magnet adjustment.

1. Receive the cross-hatch signal and adjust [PICTURE] to [MIN] and [BRIGHTNESS] to [STANDARD] .
2. Adjust the Y separation axis correction magnet on the neck assembly so that the horizontal lines at the top and bottom of the screen are straight.

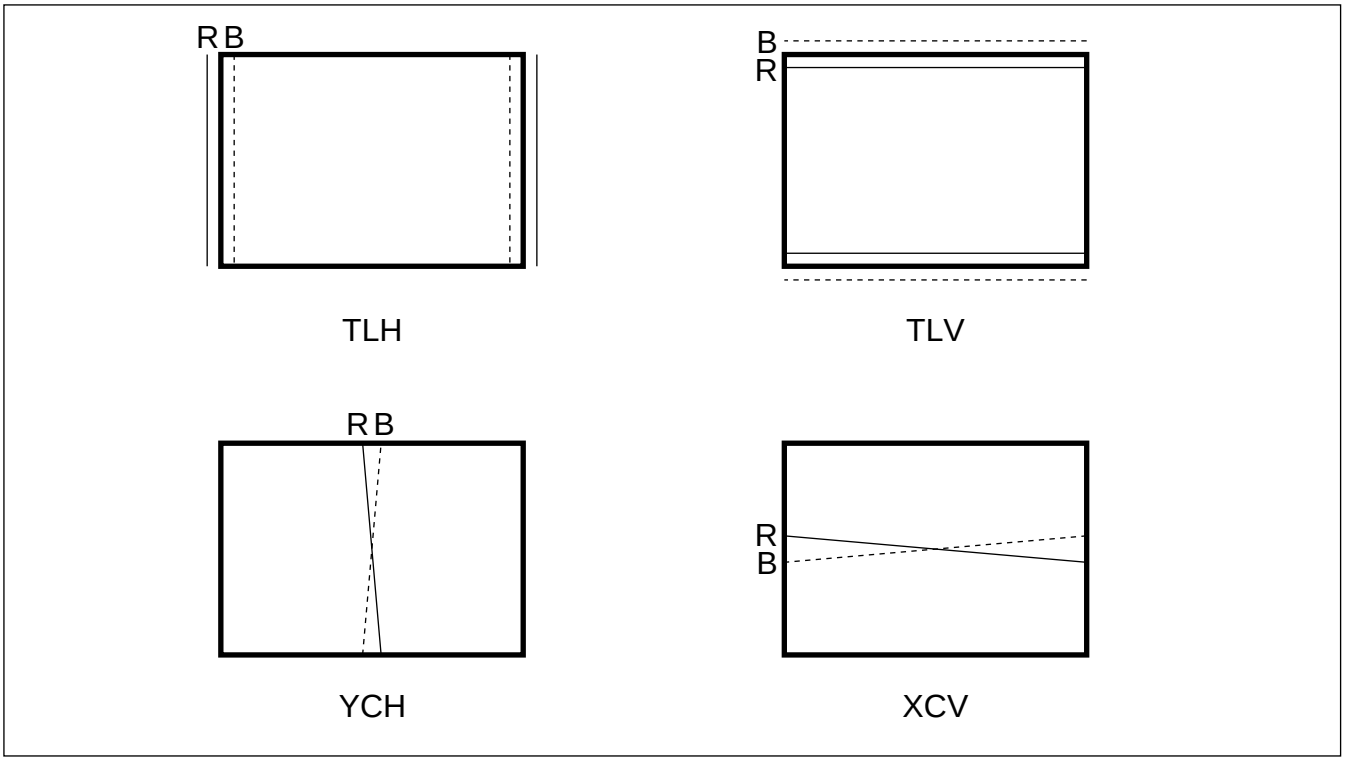
Note

1. The Red and Blue magnets should be equally far from the horizontal center line.
2. Do not separate the Red and Blue magnets too far. (Less than 8 mm)

(2) Dynamic Convergence Adjustment

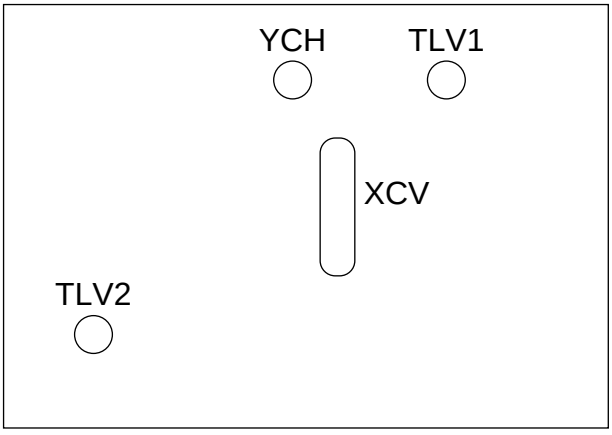
Preparation:

- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence

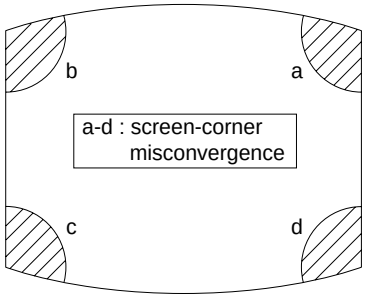


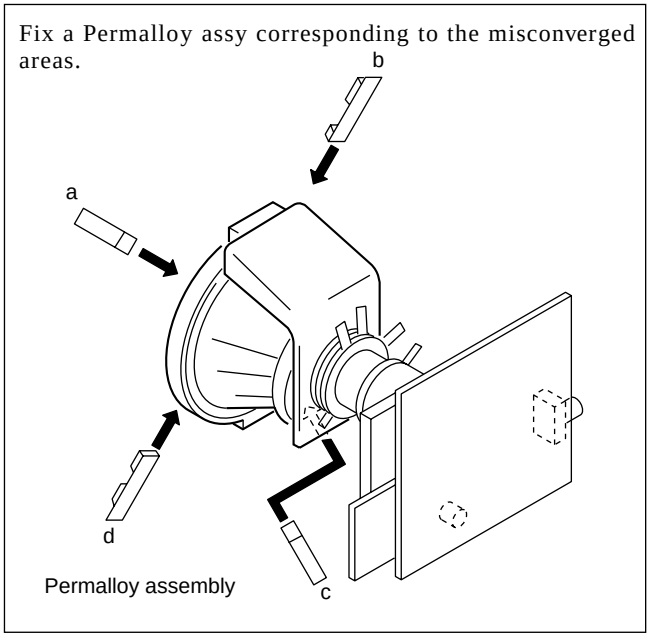
TLV	Rotate	TLV-2	VOL (29”, 34”) on DY
	Rotate	TLV	VOL (25”) on DY
XCV	Rotate	XCV	Adj core on DY
YCH	Rotate	YCH	VOL on DY
TLH	Insert	TLH	Correction Plate to DY Pocket (Left or Right)

ON DY:



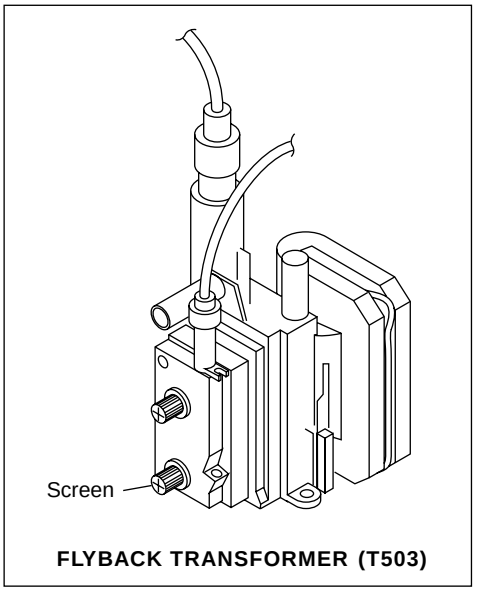
(3) Screen-corner Convergence





3-3. FOCUS ADJUSTMENT

Adjust FOCUS control on the flyback transformer for the best focus.

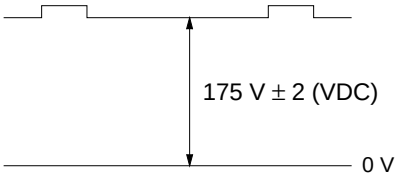


FLYBACK TRANSFORMER (T503)

3-4. G2 (SCREEN) AND WHITE BALANCE ADJUSTMENTS

1. G2 (SCREEN) ADJUSTMENT

1) Set the PICTURE to normal.
2) Put to VIDEO input mode without signals.
3) Connect R, G and B of the C board cathode to the oscilloscope.
4) Adjust BRIGHTNESS to obtain the cathode voltage to the value below.
5) Adjust G2 (screen) on the FBT until picture shows the point before cut off.

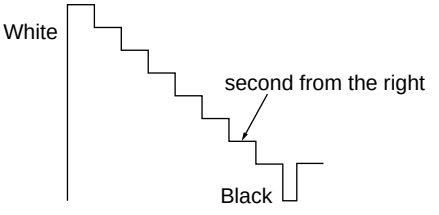


2. WHITE BALANCE ADJUSTMENT

1) Set to Service Mode (Refer Section 4-1: ADJUSTMENTS WITH COMMANDER).
2) Input white raster signal.
3) Set the PICTURE to minimum.
4) Select GCT (WHB 4) and BCT (WHB 5) with [1] and [4], and adjust the level with [3] and [6] for the best white balance.
5) Set the PICTURE to maximum.
6) Select GDR (WHB 1) and BDR (WHB 2) with [1] and [4], and adjust the level with [3] and [6] for the best white balance.
7) Write into the memory by pressing [MUTING] then [0].

3. SUB BRIGHT ADJUSTMENT

1) Set to service mode.
2) Input a staircase signal of black to white from the pattern generator.
3) BRIGHTNESS .... 50%.
   PICTURE ..... MINIMUM
4) Select SBR (WHB7) with [1] and [4], and adjust SBR (WHB7) level with [3] and [6] so that the second stripe from the right is dimly lit.



SECTION 4
CIRCUIT ADJUSTMENTS

4-1. ADJUSTMENTS WITH COMMANDER

Service adjustments are made with the RM-954 that comes with these units.

a. ENTERING SERVICE MODE

With the unit on standby
↓
[DISPLAY]
↓
[5]
↓
[VOL (+)]
↓
[POWER]

This operation sequence puts the unit into service mode.

b. METHOD OF CANCELLATION FROM SERVICE MODE

Set the standby condition (Press [POWER] button on the commander), then press [POWER] button again, hereupon it becomes TV mode.

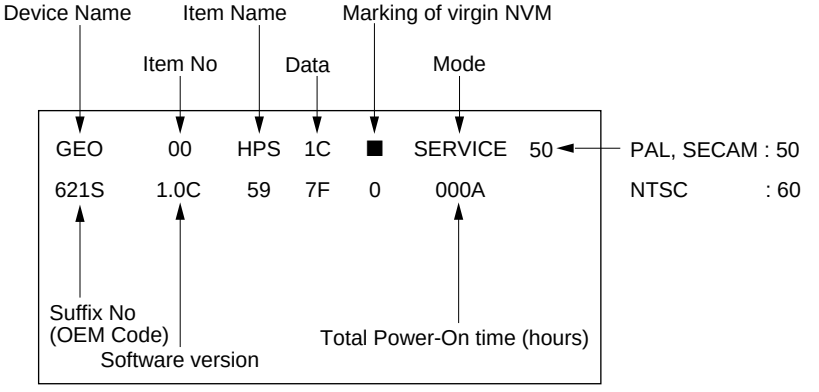
c. METHOD OF WRITE INTO MEMORY

1) Set to Service Mode.
2) Press [1] (UP) and [4] (DOWN), select an item of adjustment.
3) Press [MUTING] button and it will indicate WRITE on the screen.
4) Press [0] button to write into memory.

d. MEMORY WRITE CONFIRMATION METHOD

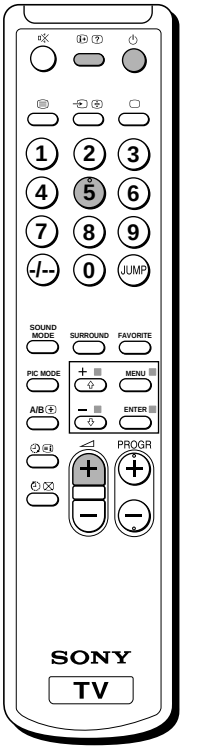
1) After adjustment, pull out the plug from AC outlet, and then plug into AC outlet again.
2) Turn the power switch ON and set to Service Mode.
3) Call the adjusted items again to confirm adjustments were made.

The screen display is :



[1], [4] ↓	Select the adjustment item.
[3], [6] ↓	Raise/lower the data value.
[MUTING] ↓	Writes.
[0]	Executes the writing.

[7], [0]	All the data becomes the values in memory.
[8], [0]	All user control goes to the standard state.
[5], [0]	Service data initialization (Be sure not to use usually.)
[2], [0]	Write 50Hz adjustment data to 60Hz, or vice versa.



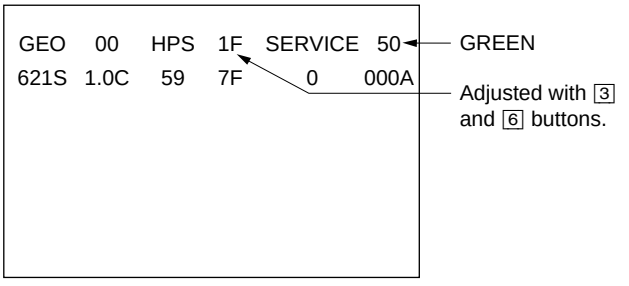
RM-954

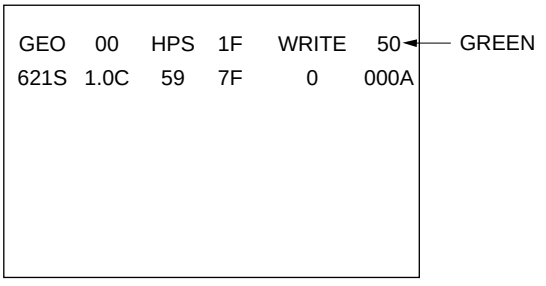
4-2. ADJUSTMENT METHOD

Item Number 00 of device GEO

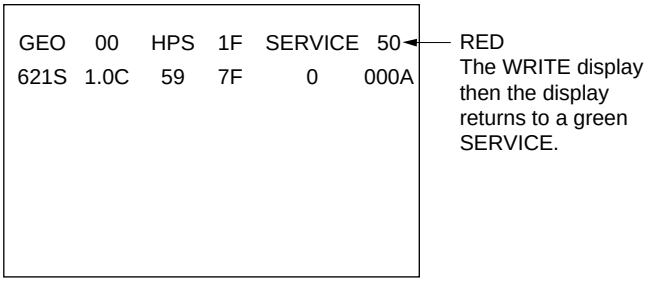
This explanation uses H-Position as an example.

1. Select “GEO 00 HPS” with the [1] and [4] buttons.
2. Raise/lower the data with the [3] and [6] buttons.
3. Select the optimum state. (The standard is 1F for PAL reception.)
4. Write with the [MUTING] button. (The display changes to WRITE.)
5. Execute the writing with the [0] button. (The WRITE display will be changed to red color while excuting, and back to SERVICE.)





Written with [MUTING]



Write executed with [0]

Use the same method for all Items. Use [1] and [4] to select the adjustment item, use [3] and [6] to adjust, write with [MUTING], then execute the write with [0].

Note : 1. In [WRITE], the data for all items are written into memory together.

2. For adjustment items that have different standard data between 50Hz or 60Hz, be sure to use the respective input signal after adjustment.

Adjustment Item Table

Device Name	Functionality No	Functionality Name	Note	Data Range	Function	Note for Different Data	Register No. (bit)	Slava Address	RAM Address (bit)
GEO	0	HPS	7	3F	H Position	50/60HZ	12 (7-2)	CXA2139S(88H)	96 (7-2)
	1	HSZ	1F	3F	H Size	50/60HZ	11 (7-2)		95 (7-2)
	2	PAP	1F	3F	Pin Amp	50/60HZ	13 (7-2)		97 (7-2)
	3	TLT	7	0F	Trapezium	50/60HZ	15 (7-4)		99 (7-4)
	4	VPS	1F	3F	V Position	50/60HZ	0F (7-2)		93 (7-2)
	5	VSZ	1F	3F	V Size	50/60HZ	0E (7-2)		92 (7-2)
	6	SCO	7	0F	S Correction	50/60HZ	10 (7-4)		94 (7-4)
	7	VLN	7	0F	V Linearity	50/60HZ	10 (3-0)		94 (3-0)
	8	BOW	7	0F	AFC Bow	50/60HZ	16 (7-4)		9A (7-4)
	9	AGL	7	0F	AFC-Angle	50/60HZ	16 (3-0)		9A (3-0)
	0A	UPN	1F	3F	Upper Pin	50/60HZ	14 (7-2)		98 (7-2)
	0B	LPN	2F	3F	Lower Pin	50/60HZ	18 (7-2)		9C (7-2)
	0C	HBL	0	1	H Blanking on/off		18 (1)		6C (1)
	0D	LBL	0F/0F	0F	Left H Blanking	50/60HZ	17 (7-4)		9B (7-4)
	0E	RBL	02/02	0F	Right H Blanking	50/60HZ	17 (3-0)		9B (3-0)
WHB	0	RDR	25/2A	3F	R Drive	DYNAMIC/other	09 (7-2)	CXA2139S(88H)	A3 (7-2)
	1	GDR	1F	3F	G Drive	DYNAMIC/other	0A (7-2)		A4 (7-2)
	2	BDR	1F	3F	B Drive	DYNAMIC/other	0B (7-2)		A5 (7-2)
	3	RCT	7	0F	R Cutoff	SECAM/other	07 (3-0)		A7 (3-0)
	4	GCT	7	0F	G Cutoff	SECAM/other	08 (7-4)		A8 (7-4)
	5	BCT	7	0F	B Cutoff	SECAM/other	08 (3-0)		A8 (3-0)
	6	BMN	15	1F	Brightness Minimum Data		06 (7-2)		106
	7	SBR	1F	3F	Sub Brightness Control		06 (7-2)		107
SAJ	0	PMX	36	3F	Picture Maximum Data		03 (7-2)	CXA2139S(88H)	105
	1	SHU	8	0F	Sub Hue Control	TV/Video	05 (7-2)		108
	2	SSH	03/05	0F	Sub Sharpness Control	TV/Video	07 (7-4)		109
	3	SCL	1F	3F	Sub Color Control	NTSC/others	04 (7-2)		10A
VP	0	EHT	02/02	0F	EHT Comp	50/60HZ	15 (3-0)	CXA2139S(88H)	99 (3-0)
	1	GMA		03	Gamma Correction (Separated in Standard mode)	NTSC/others	0B (1-0)		25B (1-0)
	2	YDL	06/09/08	0FY Delay	PAL/SECAM/NTSC	0C (3-0)			A0(3-0)
	3	SST	1	03	SECAM ID Start Position		1B (1-0)		6F (1-0)
	4	SSP	1	03	SECAM ID Stop Position		1B (3-2)		6F (3-2)
	5	SLV	2	03	SECAM ID Level		1C (1-0)		70 (1-0)
	6	SBF	22	3F	SECAM BELL fO		1C (7-2)		70 (7-2)
	7	DYC	1	1	Dynamic Color on/off		0A (1)		5E (1)
	8	ABL	1	1	ABL Mode Switching (except STANDARD mode)		09 (1)		5D (1)
	9	VTH	1	1	ABL Detection Vth Switching		09 (0)		5D (0)
	0A	SFO	1	1	FO Switching for Sharpness	NTSC/others	05 (1)		24A (1)
	0B	DCX	1	1	DC Trans. Ratio Switching		06 (1)		5A (1)
	0C	SHT	1	1	Pre-/Overshoot ratio Switch	NTSC/others	06 (0)		24A (0)

Adjustment Item Table

Device Name	Functionality No	Functionality Name	Note	Data Range	Function	Note for Different Data	Register No. (bit)	Slava Address	RAM Address (bit)
VP	0D	HDW	0	1	H Drive Pulse Width Switch		00 (6)		54 (6)
	0E	AFC	01/00	03	AFC Gain Control	TV/Video/Text	0F (1-0)		A1 (1-0)
	0F	HOS	7	0F	H Oscillation		0C (7-4)		60 (7-4)
	10	HSS	0	1	Slice Level of H Sync Sep.		0D (1)		61 (1)
	11	VSS	0	1	Slice Level of V Sync Sep.		0D (0)		61 (0)
	12	HMS	1	1	Macro Vision C/m off/on	50/60Hz	0E (0)		92 (0)
	13	YUV	00/01	1	YUV Switch Control		01 (0)		55 (0)
	14	CDV	1	3	CD mode for Video and RF under no signal	Video only	0D (5-4)		259 (5-4)
	15	RON	1	1	R ON	not memorized	01 (3)		55 (3)
	16	GON	1	1	G ON	not memorized	01 (2)		55 (2)
	17	BON	1	1	B ON	not memorized	01 (1)		55 (1)
	18	PON	1	1	P ON	not memorized	00 (7)		54 (7)
	19	BLK	0	1	BLK Off		12 (0)		66 (0)
	1A	VMC	0	1	VM Off		13 (0)		67 (0)
AP	0	BCS	01	3	Bass Center Shift		#4 (3-0)	TDA7315(80H)	24C (1-0)
	1	TCS	02	3	Treble Center Shift		#5 (3-0)		24D (1-0)
	2	TRF	03	3	RF Treble Offset		#5 (3-0)		256 (1-0)
MSP	0	WST	15	FF	W/G Stereo Threshold			MSP3415D(84H)	165
	1	WBT	EC	FF	W/G Bilingual Threshold				166
	2	WLL	5	FF	W/G Monaural Threshold				167
	3	WAC	1	0F	W/G Agreement Count				168
	4	WDL	30	FF	W/G Search Delay				169
	5	NDL	20	FF	NICAM Search Delay				16A
	6	SDL	10	FF	Stereo status Read Delay				16B
	7	AGC	1	1	AGC Switch Auto/Constant		00BB (7)		116 (7)
	8	REL	28	3F	AGC Gain at Constant Mode		00BB (6-1)		116 (6-1)
	9	CRM	0	1	Carrier muting on/off		00BB (9)		115 (9)
	0A	ACO	1	1	Audio Clock out on/off		0083 (5)		11A (5)
	0B	FP	1B	7F	FM Prescale for non-M system		000E (14-8)		221
	0C	FPM	32	7F	FM Prescale for M system		000E (14-8)		222
	0D	FH	36	7F	FM Prescale for HDEV		000E (14-8)		223
	0E	FHM	65	7F	FM Prescale for HDEV and M		000E (14-8)		224
	0F	WGP	2A	7F	W/G Prescale		000E (14-8)		225
	10	NIP	6D	7F	NICAM Prescale		0010 (14-8)		14F
	11	ERR	50	FF	Auto FM switch Threshold		0021 (10-3)		174
	12	VOL	6D	FF	Loud Speaker gain 7000 to 7ffoh		0000 (15-4)		252

Adjustment Item Table

Device Name	Functionality No	Functionality Name	Note	Data Range	Function	Note for Different Data	Register No. (bit)	Slava Address	RAM Address (bit)
SVP	0	SBF	22	3F	SECAM BELL f0		1C (7-2)	CXA2060AS(8AH)	85 (7-2)
	1	HOS	7	0F	H Oscillation		0C (7-4)		80 (7-4)
	2	SHU	8	0F	Sub Hue Control	TV/Video	05 (7-2)		210
	3	SCL	1F	3F	Sub Color Control	NTSC/Others	04 (7-2)		211
PIP	0	SDL	02	0F	Delay of output SELECT		01 (6-3)	SDA9288X(D6H)	18E (6-3)
	1	PPH	15	FF	H Position of TOP-LEFT Pin P		01/02		19D
	2	PPV	2E	FF	V Position of TOP-LEFT Pin P		03 (7-0)		19E
	3	YDL	0	07	Delay of Luminance Input		04 (2-0)		191 (2-0)
	4	HDI	3	0F	H Sync Delay for Inset		06 (3-0)		193 (3-0)
	5	ISC	01	1	Inset Clock Selection		06 (4)		193 (4)
	6	CLP	1	1	Clamp Pulse Selection		06 (5)		193 (5)
	7	CLC	0	1	Clamp Cycle Selection		06 (6)		193 (6)
	8	CON	0D	0F	Contrast Adjustment for inset		09 (7-4)		196 (7-4)
	9	PLL	2	03	H Position For A-ch		0D (6-5)		19A (6-5)
	0A	PDV	0	0F	PIP V Pedestal Level		0E (7-4)		19B (7-4)
	0B	PDU	0	0F	PIP U Pedestal Level		0E (3-0)		19B (3-0)
TXT	0	TXH	1	3	Teletext Horizontal Position		10 (1-0)	SAA5261(58H)	248 (1-0)
	1	TXV	0	3	Teletext Vertical Position		10 (6-4)		248 (5-4)
OPM	0	OSH	0A	3F	OSD H Position	Option-Misc	1F1	CXP86461(60H)	17B (7-2)
	1	COM	1	03	Comb Selection				23F (7-6)
	2	APC	1	1	APC Switch				23E (5)
	3	TSY	0	03	TV Sys at Auto TV Sys				23E (4-3)
	4	MUT	0	1	No Signal Mute				23E (0)
	5	AFM	1	1	Auto FM switch				23E (1)
	6	RFB	0	3	C-BPF Control				23F (5-4)
	7	TVO	0	7	Tilt to V-Angle offset				23F (2-0)
	8	DBL	0	1	Disable Blue Black Function				23E (2)
OPB	0	OP1	FF	FF	Optional Bits 1 (see below)	Option-Bits		CXP86461(60H)	48
	1	OP2	E3	FF	Optional Bits 2 (see below)				49
	2	OP3	0	FF	Optional Bits 3 (see below)				4A

NOTE

- shaded items are fixed data.
- Standard data listed on the Adjustment Item Table are reference values, therefore it may be different for each model and for each mode.
- Note for Different Data Those are the standard data values written on the microprocessor. Therefore, the data values of the modes and stored respectively in the memory.
  In case of a device replacement, adjustment by rewriting the data value is necessary for some items.

ITEM INFORMATION.

No. OPB0 OP1

Item	XTAL 4.43	XTAL 3.58	SECAM	2nd. Lang	B/G	I	D/K	M
KV-XF25M50	1	1	1	1	1	1	1	1
KV-XF25M80	1	1	1	1	1	1	1	1

No. OPB1 OP2

Item	TOP	NICAM	HDEV	Thai Bil	Dis Fav.	DVD Input	AV Input	
KV-XF25M50	0	0	0	0	0	0	1	1
KV-XF25M80	0	0	0	0	0	0	1	1

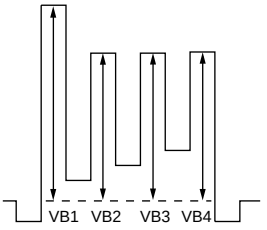
No. OPB2 OP3

Item	Pic rot	2199 Curve	Auto PIC	Auto TV sys	US ST	AV Mono	11 KEY	Color SW
KV-XF25M50	0	0	1	0	0	0	0	0
KV-XF25M80	0	0	1	0	0	0	0	0

4-3. PICTURE QUALITY ADJUSTMENTS

SUB COLOR ADJUSTMENT

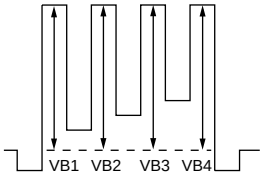
1. Input a PAL color-bar.
2. Set to the following condition:
   PICTURE 100%, BRIGHTNESS 50%, COLOR 50%
3. Connect an oscilloscope to pin ① (B OUT) of CN305, A board.
4. Set to Service Mode and select SAJ 3 'SCL' with [1] and [4] of the commander then adjust to VB2=VB3=VB4 with [3] and [6].
5. Press [MUTING] → [0] of the commander to write the data.
6. Adjust SAJ 3 'SCL' as step 2 to 5 when receiving NTSC color-bar.



VB2 = VB3 = VB4

SUB HUE ADJUSTMENT

1. Select Video 1.
2. Input a NTSC color-bar, video into Video 1.
3. Set the following condition:
   PICTURE 100%, BRIGHTNESS 50%, COLOR 50%
4. Connect an oscilloscope to pin ① (B OUT) of CN305, A board.
5. Select SAJ 1 'SHU' with [1] and [4] of the commander by setting to Service Mode and adjust to VB1=VB2=VB3=VB4 with [3] and [6].

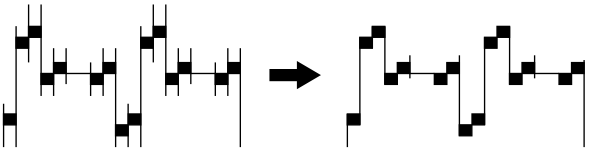


VB1 = VB2 = VB3 = VB4

6. Press [MUTING] → [0] of the commander to write the data.

BELL FILTER ADJUSTMENT

1. Input SECAM color-bar signal.
2. Connect the dual-trace oscilloscope to the pin ⑨ (R-Y) of CN303 (not mounted).
3. Adjust SERVICE MODE, ITEMS 'SBF' as shown below.



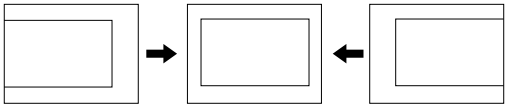
4-4. A BOARD ADJUSTMENT AFTER IC003 (MEMORY) REPLACEMENT

1. Enter to Service Mode.
2. Press commander buttons [5] and [0] (Data Initialize), and [2] and [0] (Data Copy) to initialize the data.
3. Call each item number and check if the respective screen shows the normal picture.
   In cases where items are not well adjusted, rectify the items with fine adjustment.
   Write the data per each item number ([MUTING] +[0]).
4. Select item numbers "OPB0" (OP1), "OPB1" (OP2) and "OPB2" (OP3) and respectively set the bit per model with command buttons [3] and [6].
5. Press commander buttons [8] and [0] (Test Normal) to return to the data that was set on the shipment from the factory.
   (This will also cancel Service Mode.)

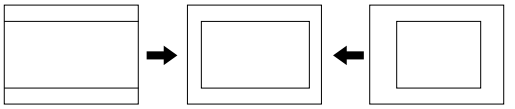
4-5. PICTURE DISTORTION ADJUSTMENT (1)

Item Number 00 – 0B

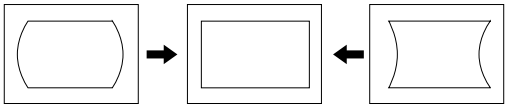
00 HPS (H POSITION)



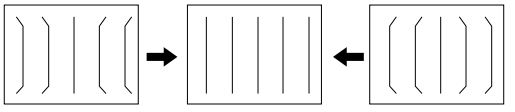
01 HSZ (H SIZE)



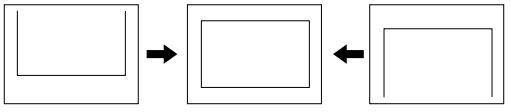
02 PAP (PIN AMP)



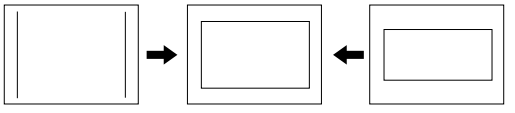
03 CNP (CORNER PIN)



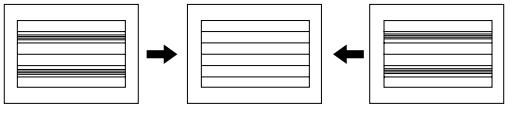
05 VPS (V POSITION)



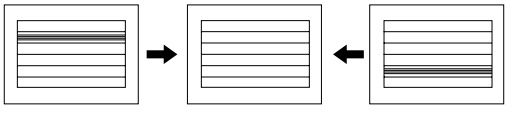
06 VSZ (V SIZE)



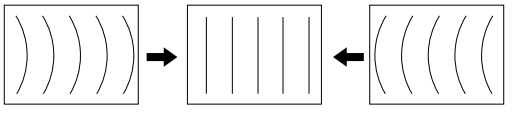
07 SCO (VERTICAL S-Correction)



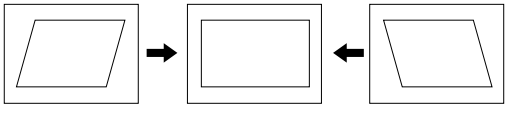
08 VLN (V LINEARITY)



0B BOW (AFC.BOW)

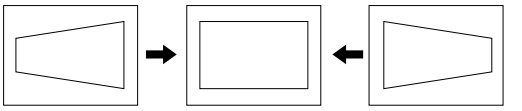


0C AGL (AFC.ANGLE)



PICTURE DISTORTION ADJUSTMENT (2)

H-TRAPEZOID (Rotate RV1801)



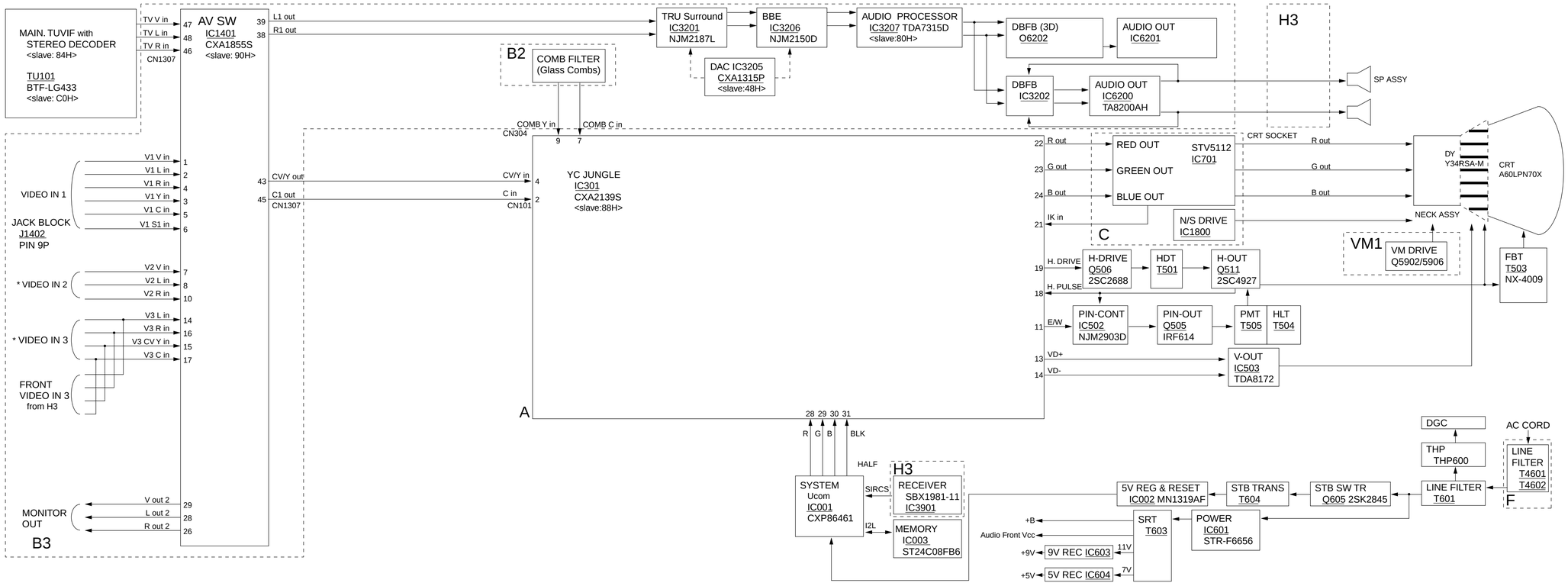
MEMO

MEMO

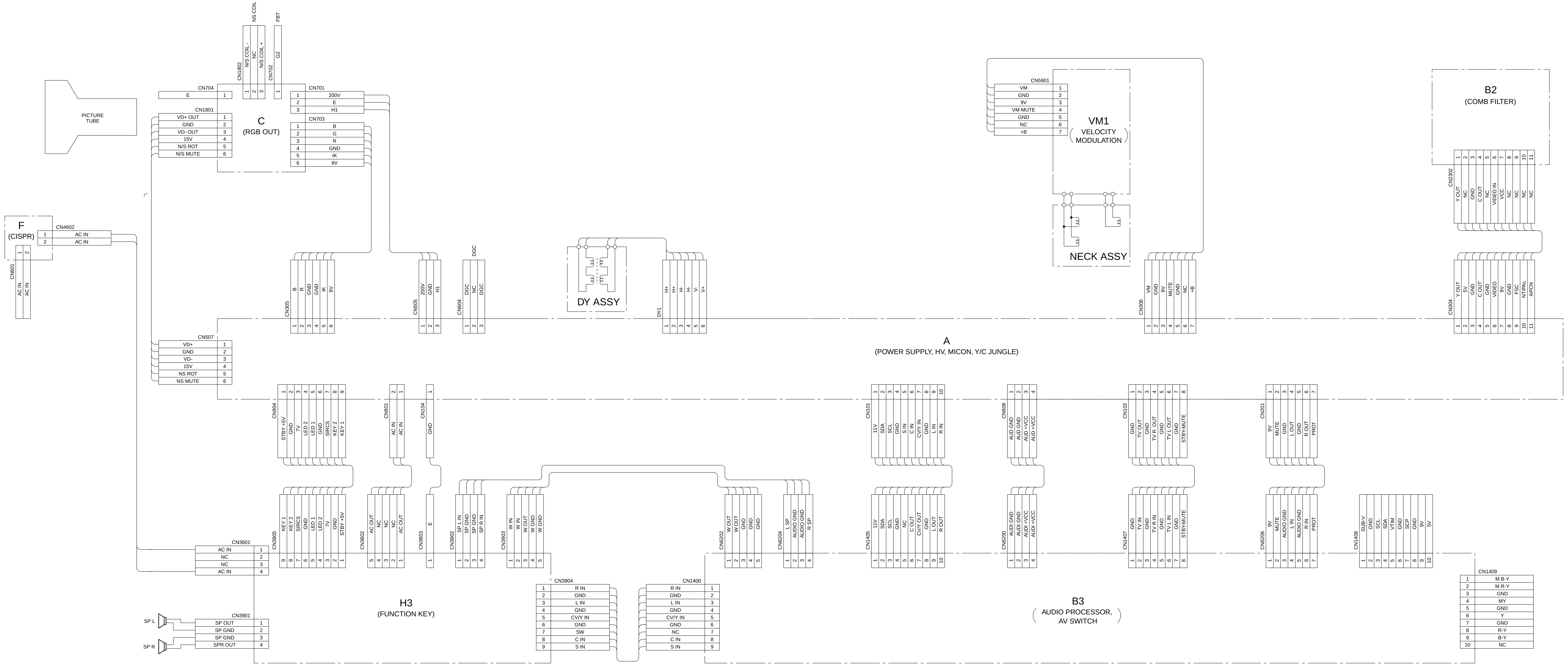
KV-XF25M50/XF25M80 RM-954 KV-XF25M50/XF25M80 RM-954

SECTION 5 DIAGRAM

5-1. BLOCK DIAGRAM

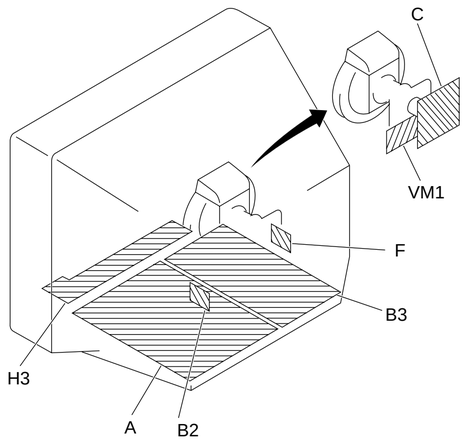


5-2. FRAME SCHEMATIC DIAGRAM


PICTURE TUBE
C
(RGB OUT)
CN704 E 1
CN1801 VD+ OUT 1 GND 2 VD- OUT 3 15V 4 N/S ROT 5 N/S MUTE 6
NS COIL CN1802 N/S COIL - NC N/S COIL +
FBT CN702 G2
CN701 1 200V 2 E 3 H1
CN703 1 B 2 G 3 R 4 GND 5 IK 6 9V
F
(CISPR)
CN4602 1 AC IN 2 AC IN
CN601 AC IN AC IN
CN305 B R GND GND IK 9V
CN505 200V GND H1
CN604 DGC NC DGC
DGC
DY ASSY
DY1 H+ H+ H- H- V- V+
VM1
VELOCITY MODULATION
CN5901 VM 1 GND 2 9V 3 VM MUTE 4 GND 5 NC 6 +B 7
NECK ASSY
CN306 VM GND 9V MUTE GND NC +B
B2
(COMB FILTER)
CN2302 Y OUT NC GND C OUT NC VIDEO IN VCC NC NC NC NC
CN304 Y OUT 5V GND C OUT GND VIDEO 9V GND FSC NT/PAL APCN
A
(POWER SUPPLY, HV, MICON, Y/C JUNGLE)
CN507 VD+ 1 GND 2 VD- 3 15V 4 NS ROT 5 NS MUTE 6
CN904 STBY +5V GND 7V LED 2 LED 1 GND SIRCS KEY 2 KEY 1
CN601 AC IN AC IN
CN104 GND
CN101 11V SDA SCL GND S IN C IN CV/Y IN GND L IN R IN
CN608 AUD GND AUD GND AUD +VCC AUD +VCC
CN102 GND TV OUT GND TV R OUT GND TV L OUT GND STBY-MUTE
CN201 9V MUTE GND L OUT GND R OUT PROT
CN3905 KEY 1 KEY 2 SIRCS GND LED 1 LED 2 7V GND STBY +5V
CN3602 AC OUT NC NC NC AC OUT
CN3603 E
CN3902 SP L IN SP GND SP GND SP R IN
CN3903 W IN W IN W OUT W GND W GND
CN6202 W OUT W OUT GND GND GND
CN6204 L SP AUDIO GND AUDIO GND R SP
CN1405 11V SDA SCL GND NC C OUT CV/Y OUT GND L OUT R OUT
CN6200 AUDI GND AUDI GND AUDI +VCC AUDI +VCC
CN1407 GND TV IN GND TV R IN GND TV L IN GND STBY-MUTE
CN6206 9V MUTE AUDIO GND L IN AUDIO GND R IN PROT
CN1408 SUB-V GND SCL SDA VTIM GND SCP GND 9V 5V
CN3601 AC IN 1 NC 2 NC 3 AC IN 4
H3
(FUNCTION KEY)
SP L
SP R
CN3901 SP OUT 1 SP GND 2 SP GND 3 SPR OUT 4
CN3904 1 R IN 2 GND 3 L IN 4 GND 5 CV/Y IN 6 GND 7 SW 8 C IN 9 S IN
CN1400 R IN 1 GND 2 L IN 3 GND 4 CV/Y IN 5 GND 6 NC 7 C IN 8 S IN 9
B3
AUDIO PROCESSOR, AV SWITCH
CN1409 1 M B-Y 2 M R-Y 3 GND 4 MY 5 GND 6 Y 7 GND 8 R-Y 9 B-Y 10 NC

KV-XF25M50/XF25M80
RM-954

5-3. CIRCUIT BOARDS LOCATION



5-4. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note:

- All capacitors are in µF unless otherwise noted.
- All electrolytic capacitors are rated at 50V unless otherwise noted.
- All resistors are in ohms.
  kΩ = 1000Ω, MΩ = 1000kΩ
- Indication of resistance which does not have rating electrical power is as follows.

  Pitch: 5 mm
  Rating electrical power 1/4W (CHIP: 1/10W)

- : nonflammable resistor.
- △ : internal component.
- : panel designation or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B unless otherwise noted.
- **Readings are taken with a color-bar signal input.**
  no mark : PAL
  ( ) : SECAM
  [ ] : NTSC 3.58
  « » : NTSC 4.43
- **Readings are taken with a 10 MΩ digital multimeter.**
- **Voltage are dc with respect to ground unless otherwise noted.**
- **Voltage variations may be noted due to normal production tolerances.**
- **All voltages are in V.**
- *** :Cannot be measured.**
- **Circled numbers are waveform references.**
- **: B + bus.**
- **: B – bus.**
- **: signal path.**

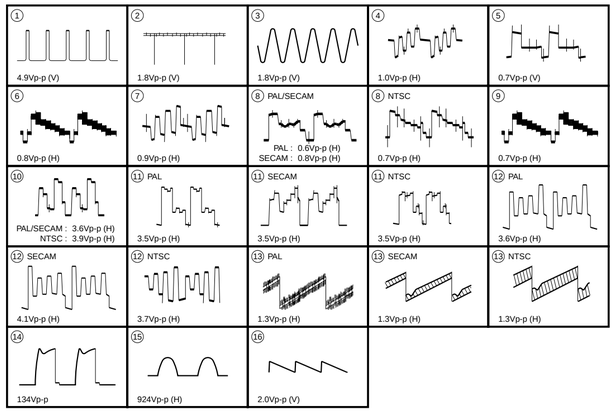
Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: RW	NONFLAMMABLE WIREWOUND
	: ※	ADJUSTMENT RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

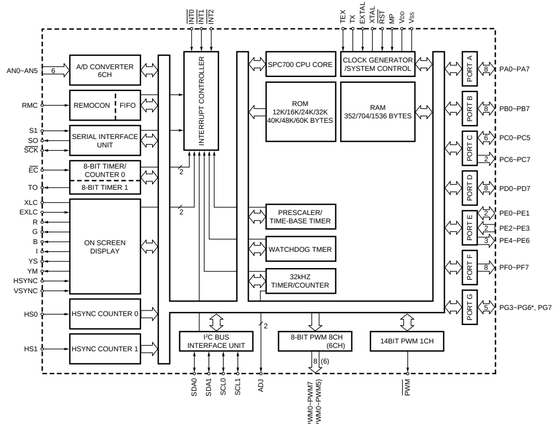
Note: The component identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

KV-XF25M50/XF25M80
RM-954

A BOARD WAVEFORMS

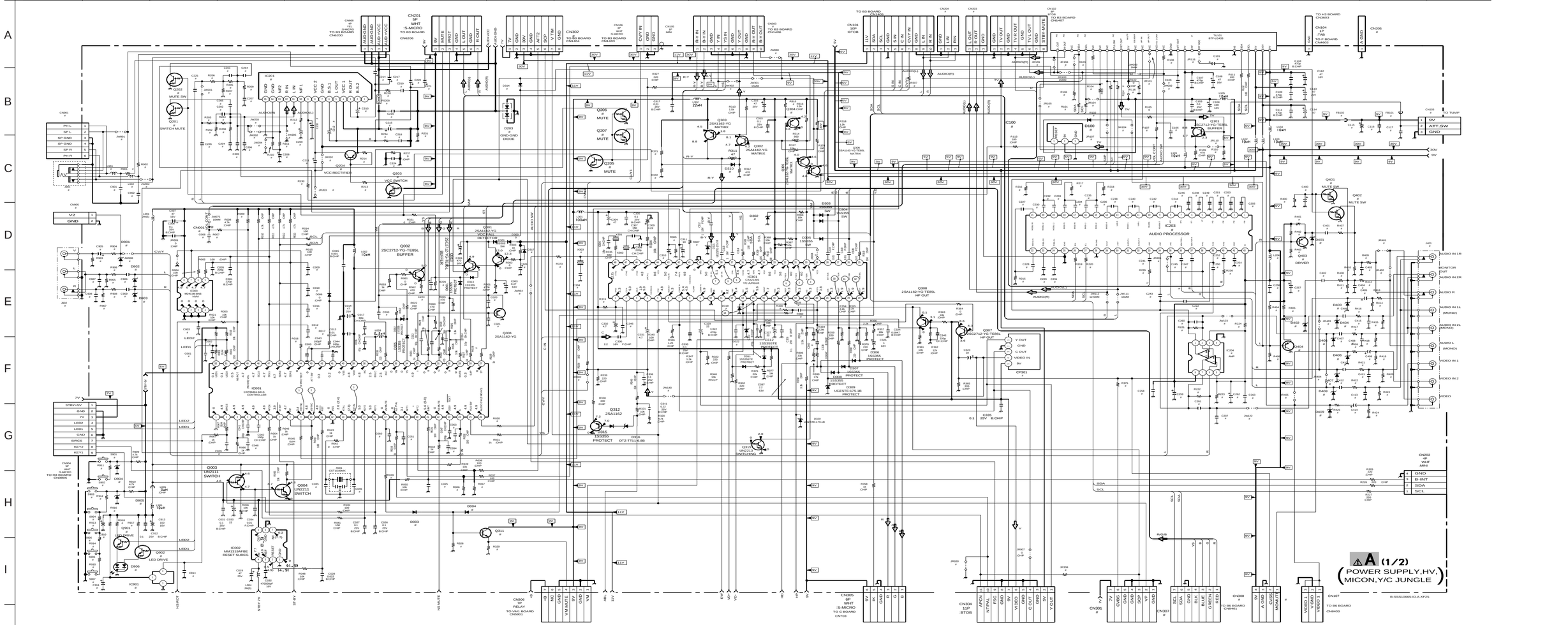


A BOARD IC001 CXP86461-621S

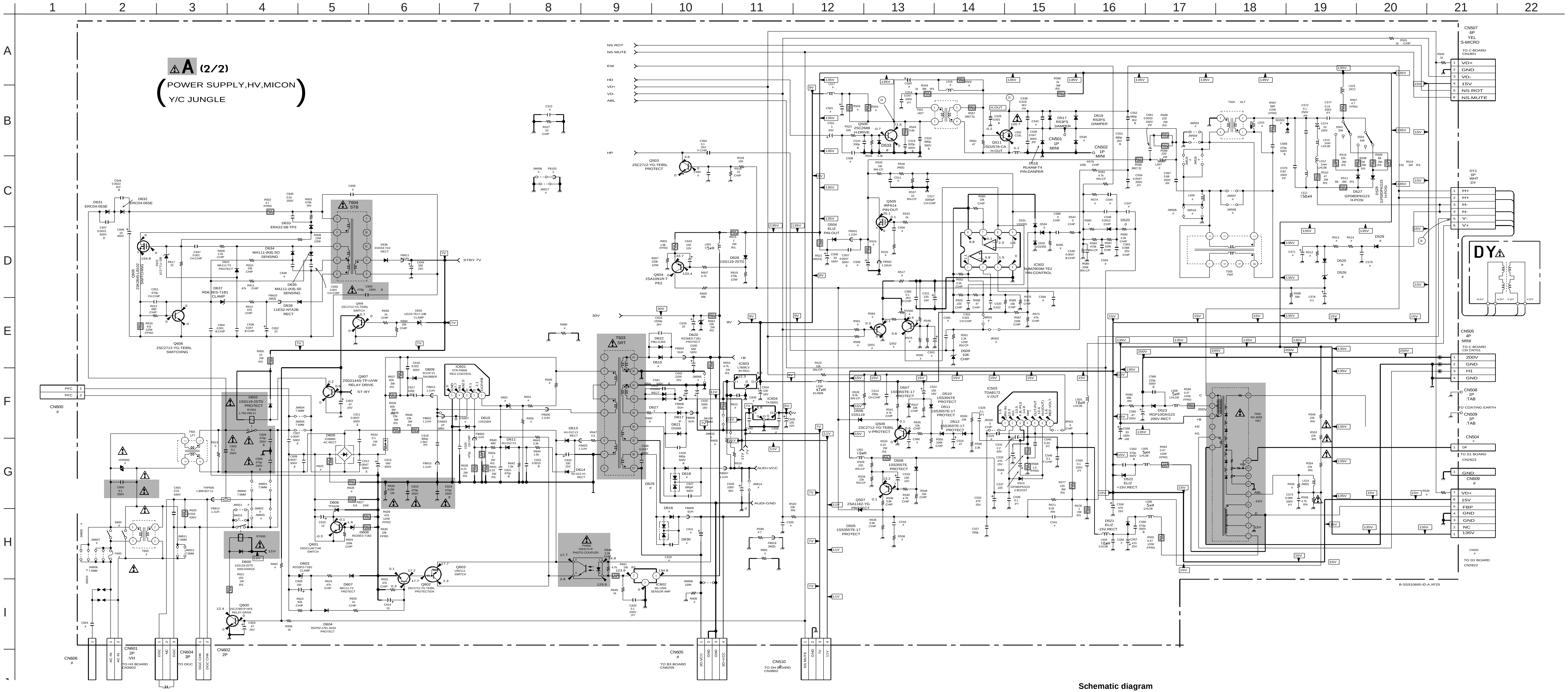


Schematic diagram
A(1/2) board ➡

(1) Schematic Diagram of A(1/2) Board



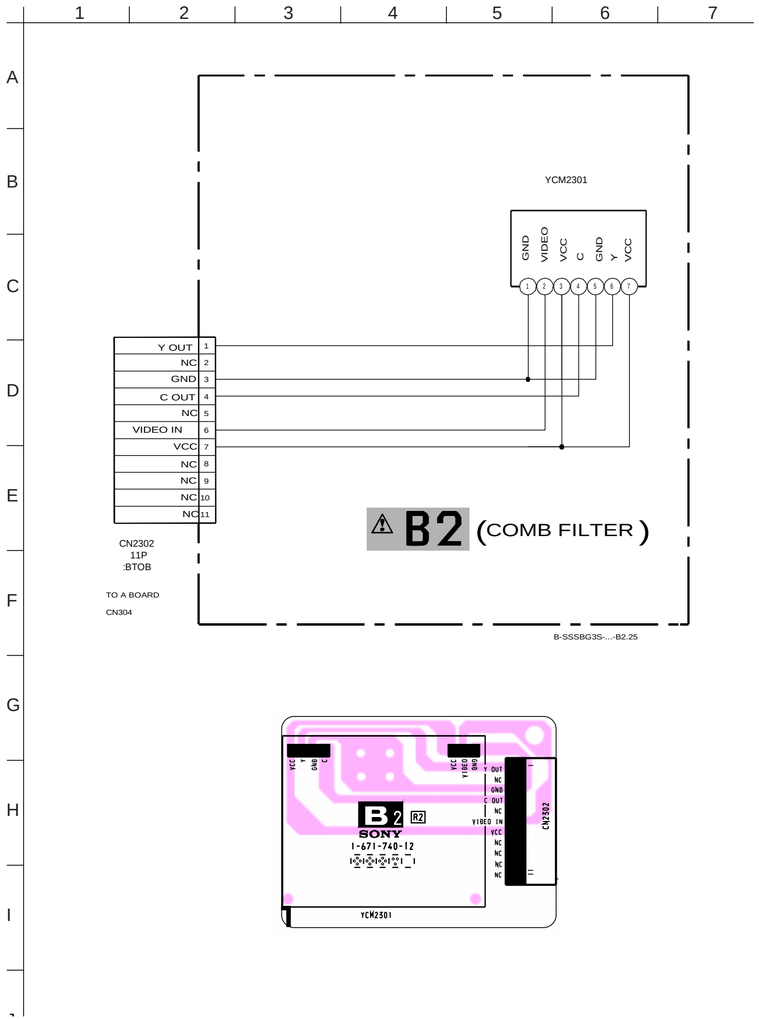
(2) Schematic Diagram of A(2/2) Board



A (2/2)
POWER SUPPLY,HV,MICON
Y/C JUNGLE
CN507 6P YEL :S-MICRO
TO C BOARD CN1801
VD+
GND
VD-
15V
NS ROT
NS MUTE
DY1 6P WHT :DY
H+
H+
H-
H-
V-
V+
DY
CN505 4P :MINI
TO C BOARD CN CN701
200V
GND
H1
GND
CN508 1P :TAB
TO COATING EARTH
CN509 1P :TAB
CN504
DF
TO D1 BOARD CN2823
GND
CN609
VD+
15V
FBP
GND
GND
NC
135V
CN503
TO D1 BOARD CN2822
B-SSS10665-ID.A.XF25
CN600
PFC
PFC
CN601 2P :VH
AC IN
AC IN
TO H3 BOARD CN3602
CN604 3P
DGC
NC
DGC
TO DGC
CN602 2P
DGC CHK
DGC CHK
CN606
CN605
3D-VCC
GND
GND
3D+VCC
TO B3 BOARD CN6205
CN510
NS MUTE
GND
7V
11V
TO DH BOARD CN3802
T604 STB
T603 SRT
T503 NX-4009 FBT
IC601 STR-F6656 REG CONTROL
IC502 NJM2903M-TE2 PIN-CONTROL
IC503 TDA8172 V.OUT
IC603 L7809CV 9V-REG
IC604 TA7805S
IC602 SE-135N SENSOR AMP
PH600 ON3171-R PHOTO COUPLER

Schematic diagram
A(2/2) board

(3) Schematic Diagram of B2 Board



A BOARD

IC

IC001	B-10
IC002	C-10
IC003	A-9
IC100	B-5
IC201	B-11
IC203	B-3
IC204	B-2
IC301	B-6
IC503	J-5
IC601	J-8
IC602	H-6
IC603	D-8
IC604	D-10
IC901	I-13

TRANSISTOR

Q001	C-8
Q002	B-8
Q003	C-9
Q004	B-9
Q101	A-4
Q201	A-11
Q202	A-11
Q203	C-11
Q204	C-12
Q205	A-12
Q206	A-11
Q207	A-12
Q301	A-8
Q302	B-6
Q303	A-6
Q304	A-6
Q305	B-6
Q306	B-5
Q307	C-7
Q308	C-7
Q309	C-7
Q310	D-8
Q311	D-9
Q312	B-7
Q313	B-8
Q315	B-5
Q401	D-2
Q402	D-1
Q403	D-2
Q404	C-3
Q501	D-6
Q502	E-7
Q503	F-6
Q505	D-6
Q506	E-2
Q507	H-6
Q509	F-6
Q511	F-1
Q600	D-12
Q601	F-11
Q602	J-7
Q604	H-6
Q605	E-12
Q606	F-11
Q607	H-13
Q608	E-12
Q901	H-13

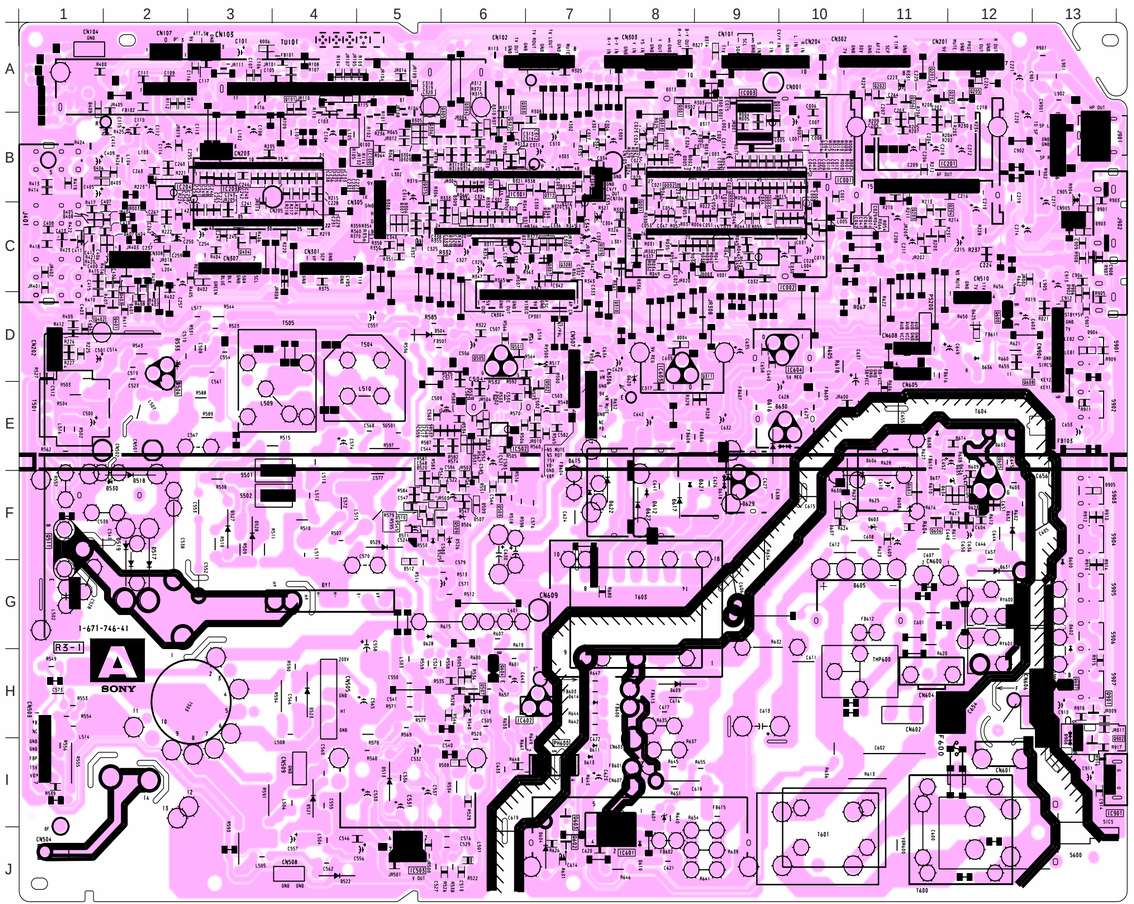
DIODE

D001	B-8
D002	C-8
D003	C-9
D004	D-8
D005	B-8
D006	A-3
D100	B-5
D203	C-11
D300	A-9
D301	B-9
D302	B-6
D303	B-5
D304	B-5
D305	B-5
D306	C-5
D307	C-5
D308	C-5
D309	B-6
D310	A-6
D311	C-6
D312	C-6
D313	A-8
D315	B-7
D316	C-7
D317	B-9
D314	A-9
D319	C-6
D320	C-6
D321	B-6
D401	D-2
D402	D-3
D403	B-2
D404	C-2
D405	C-1
D406	B-1
D407	C-2
D408	C-1
D409	A-1
D504	D-5
D505	H-6
D506	F-6
D507	F-6
D508	I-6
D509	F-6
D510	F-5
D511	F-5
D512	G-5
D513	I-5
D517	F-2
D518	F-2
D519	F-2
D520	E-5
D521	I-4
D522	J-4
D523	H-4
D525	F-5
D527	F-3
D528	F-3
D529	F-5
D530	F-2
D531	E-6
D532	E-6
D533	D-2
D534	E-6
D600	G-13
D601	I-8
D602	G-13
D603	F-11
D604	J-7
D605	G-10
D606	E-11
D607	F-10
D608	F-11
D609	H-8
D611	I-7
D612	F-8
D613	I-7
D615	E-7
D616	E-9
D617	F-8
D618	F-9
D620	D-8
D621	F-9
D622	F-8
D623	F-12
D624	E-12
D625	D-12
D627	F-8
D628	G-5
D629	F-9
D630	E-10
D631	G-12
D632	F-12
D633	E-12
D634	F-11
D635	E-12
D636	D-12
D637	F-11
D638	E-11
D901	C-13
D902	C-13
D903	C-13
D904	D-13
D905	F-13
D906	I-13

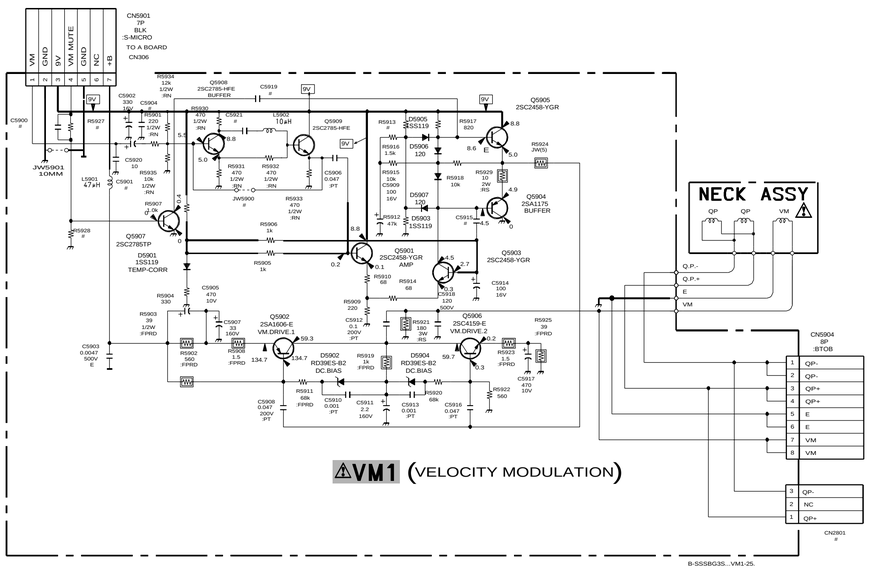
B2 [COMB FILTER] **A** [POWER SUPPLY, HV, MICON, Y/C JUNGLE]

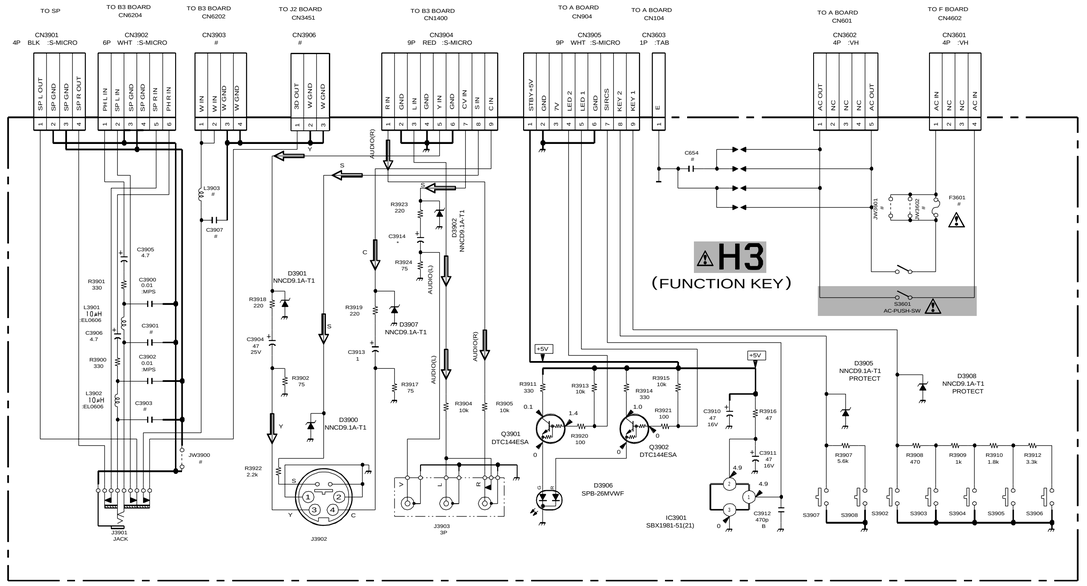
PRINTED WIRING BOARDS

– A Board –



NOTE:
The circuit indicated at left contains high voltage of over 600 Vp-p. Please pay attention when inspecting or repairing it to prevent an electric shock.



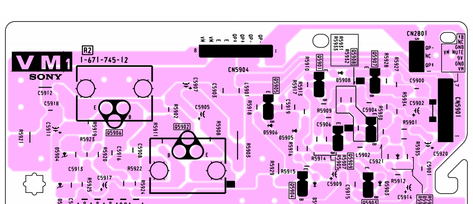


PRINTED WIRING BOARDS

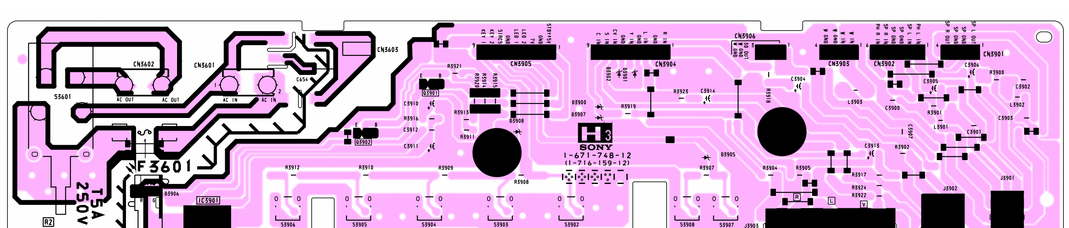
VM1 [VELOCITY MODULATION]

H3 [FUNCTION KEY]

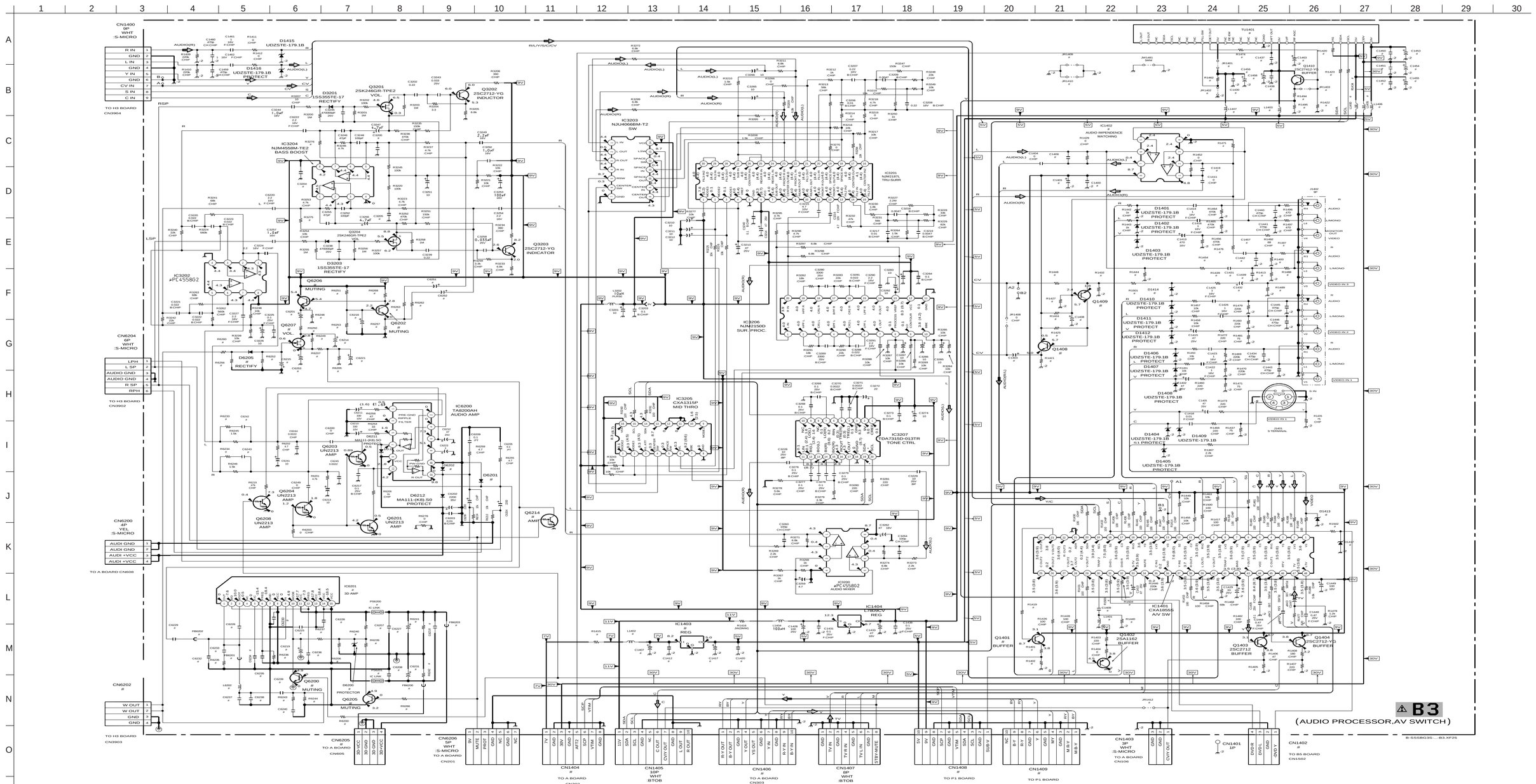
– VM1 Board –



– H3 Board –



(5) Schematic Diagram of B3 Board

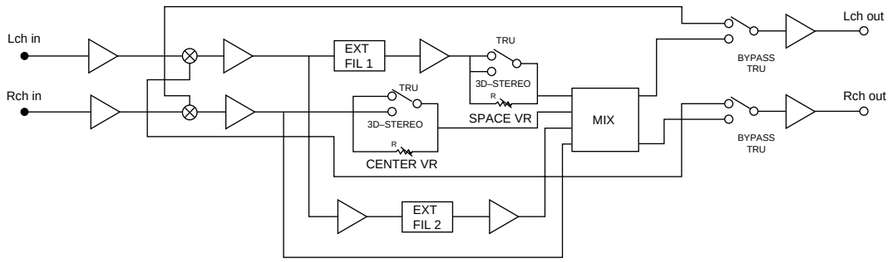


KV-XF25M50/XF25M80
RM-954

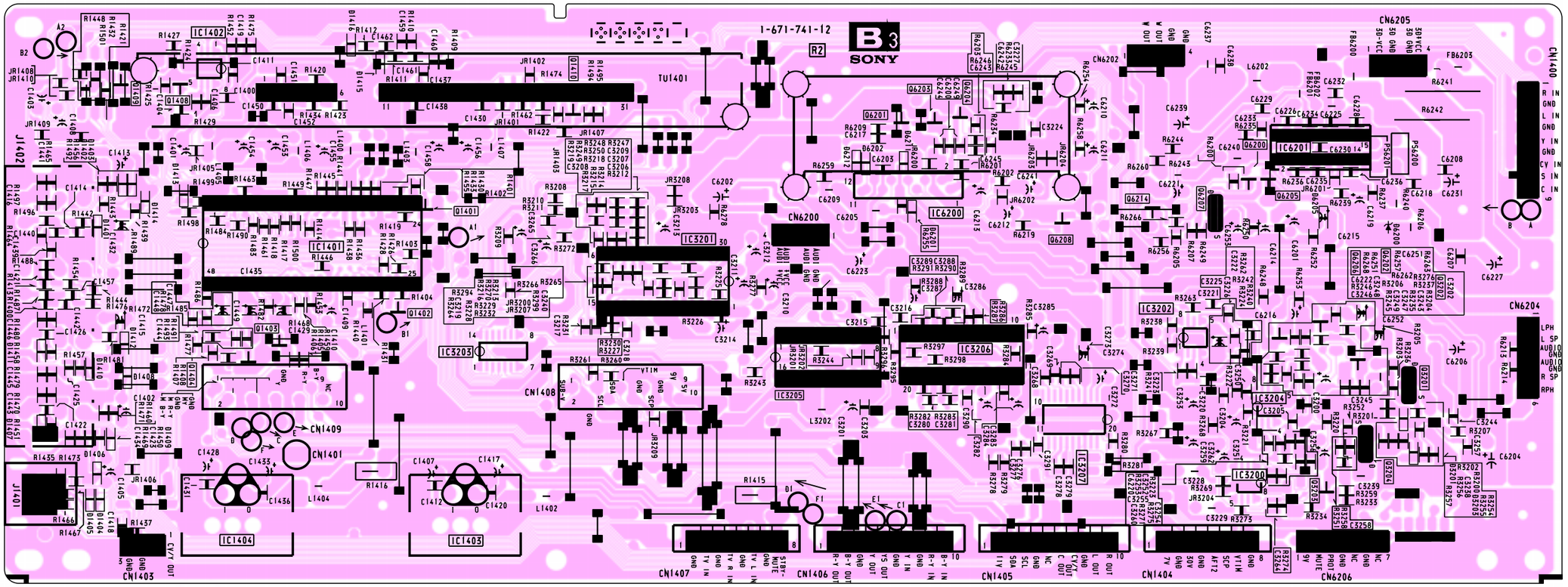
PRINTED WIRING BOARD

B3 [AUDIO PROSESSOR, AV SWITCH]

B3 BOARD IC3201 NJM2187L

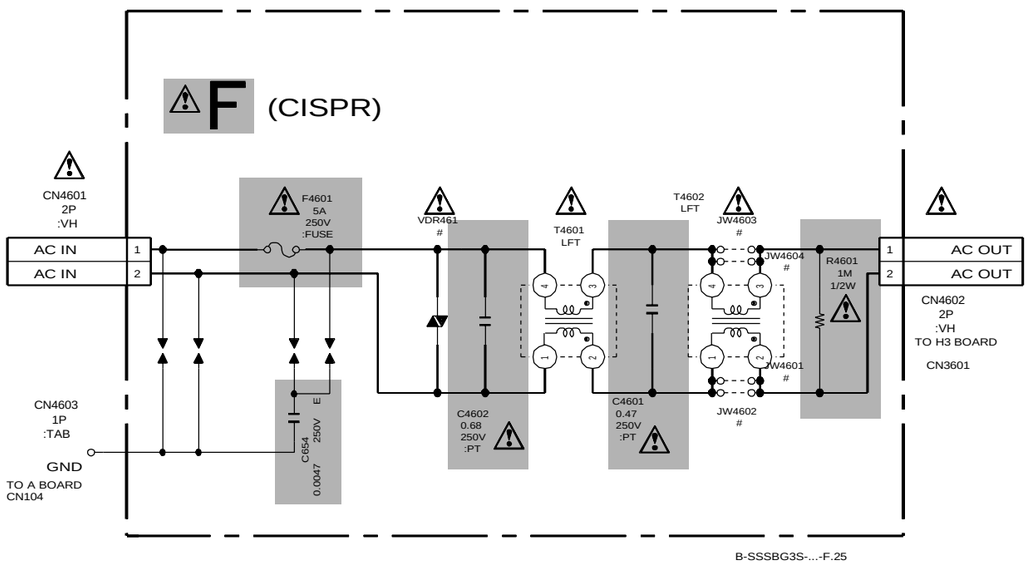


– B3 Board –

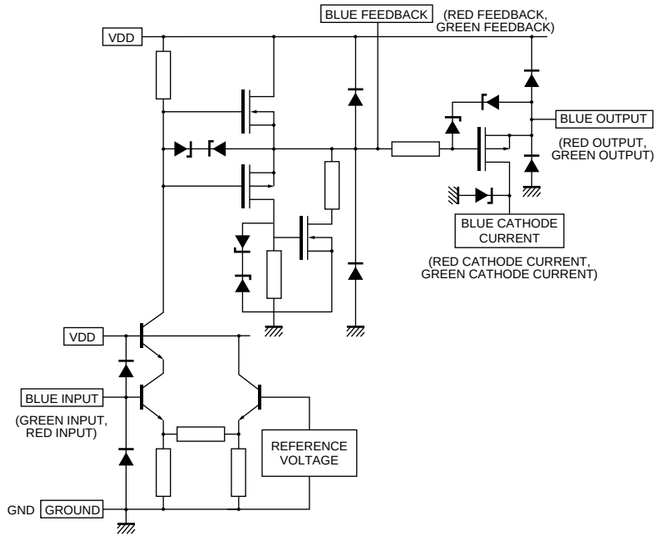


Schematic diagram
F board ➡

(6) Schematic Diagram of F Board



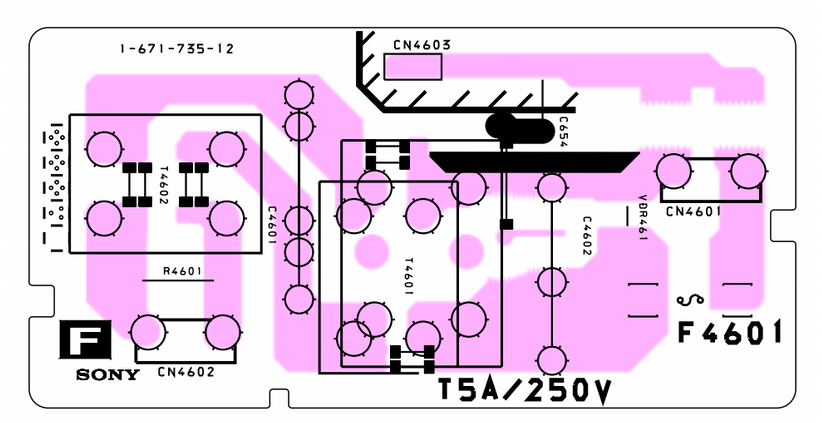
C BOARD IC701 STV5112



PRINTED WIRING BOARD

F [CISPR]

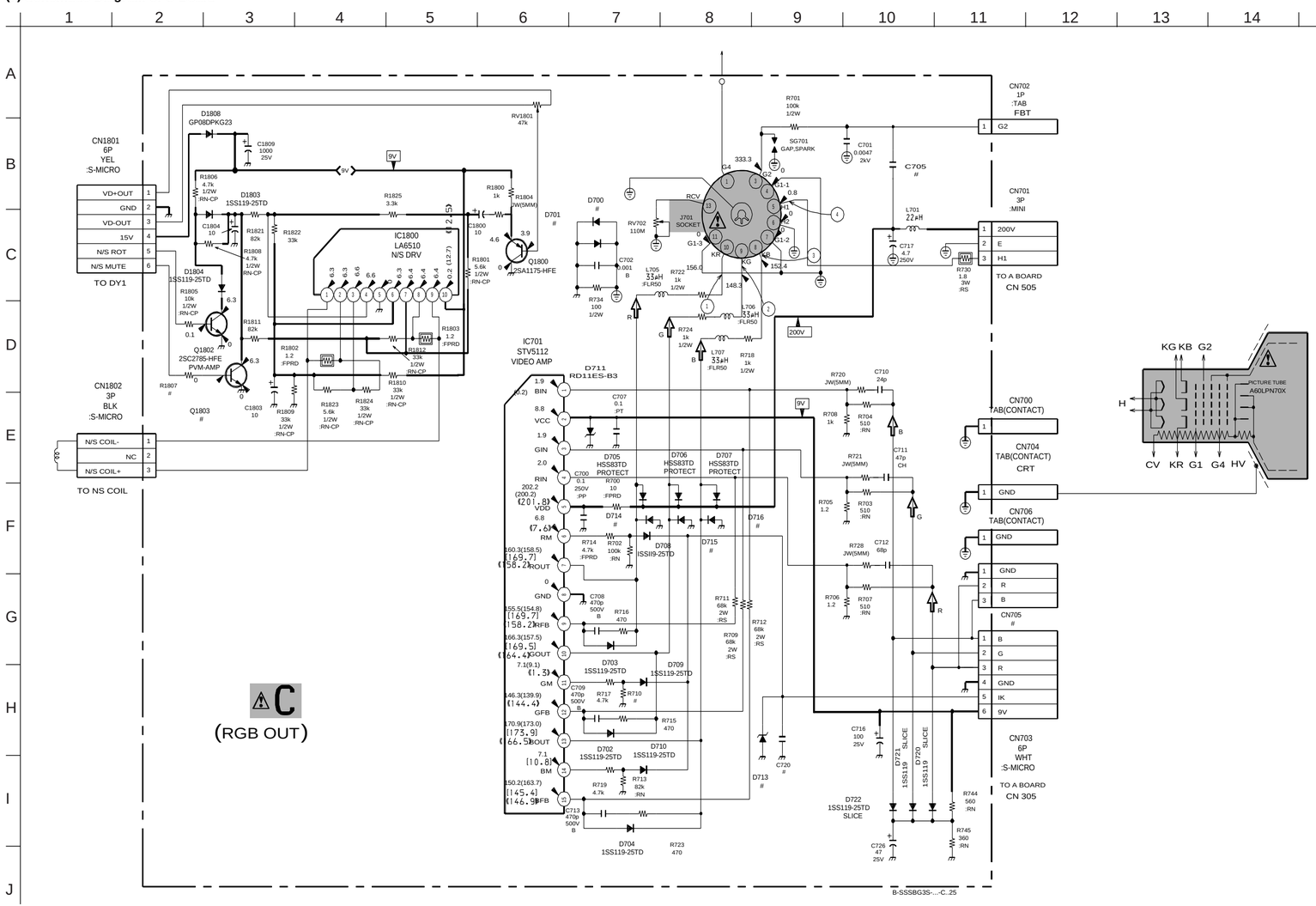
– F Board –



C BOARD WAVEFORMS

① PAL 122Vp-p (H)	① SECAM 125Vp-p (H)	① NTSC 140Vp-p (H)
② PAL/SECAM PAL : 122Vp-p (H) SECAM : 118Vp-p (H)	② NTSC 113Vp-p (H)	③ PAL/NTSC PAL : 135Vp-p (H) NTSC : 126Vp-p (H)
③ SECAM 115Vp-p (H)	④ PAL/NTSC : 23.1Vp-p (H) SECAM : 22.8Vp-p (H)	

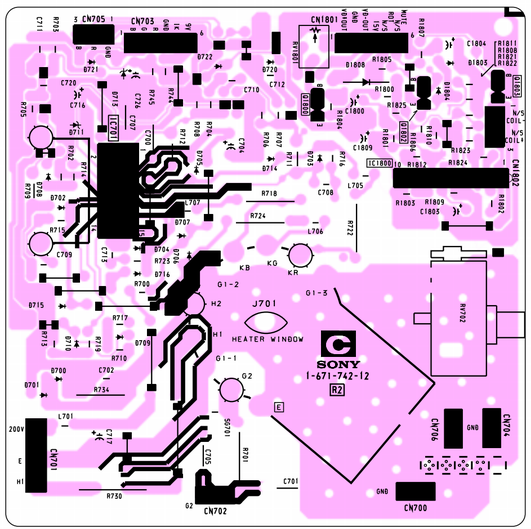
(7) Schematic Diagram of C Board



PRINTED WIRING BOARD

C [RGB OUT]

– C Board –



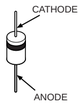
Schematic diagram

← **C** **board**

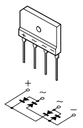
5-5. SEMICONDUCTORS

DIODE

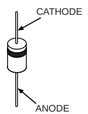
AU-01Z-V1
EL1Z
ERA22-08
GP08D
NNCD9.1A-T1
RD33EB3T
RGP02-17EL-6433



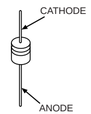
D3SB60



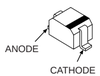
ERC04-06SE
HSS8370
RS3FS
RU4AM-T4



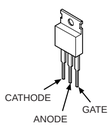
D1NS4
RD11ES-B3
RD20ES-B2
RD30ESB2
RD39ES-B2
RD6.8ES-B1
1SS119-25
11EQSO4
11ES2-7B5



DTZ-TT11-15B
DTZ10B
MA111-(K8).S0
UDZS-TE17-5.1B
UDZS-TE17-9.1B
1SS355TE-17

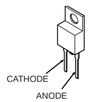


5P6M

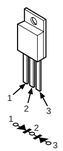


D3L60

D5S6M

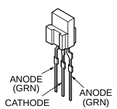


FMX-12S



LED

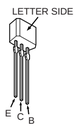
SPB-26MVWF



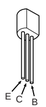
TRANSISTOR

UN2111
UN2211
UN2213
2SA1162-G
2SC2712-YG
2SD2114K

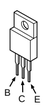
DTC144ESA
2SA1175-HFE
2SC2785-HFE



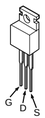
2SA1091-0



2SA1606-E
2SC4159-E

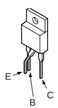


IRF614

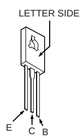


2SK246-GR

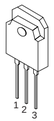
2SK2845-LB102



2SC2688-LK



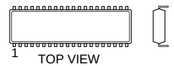
2SD2578-CA



2SC2458-YGR
2SD2144S-UVW

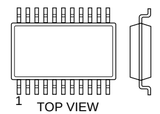
IC

CXA11315P (16PIN)
CXA1855S (48PIN)
CXA2139S (64PIN)
CXP86461-621S (64PIN)
M24C08-BN6(8PIN)
NJM2150D (20PIN)
NJM2187L (30PIN)
STV5112 (15PIN)



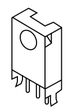
Dual In-line Package
Pin 6~98

MM1319AFBE (7PIN)
NJM2903M (8PIN)
NJU4066BM (14PIN)
TDA7315D013TR (20PIN)
µPC4558G2 (8PIN)



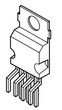
Small Out-line L-leaded Package
Pin 8~98

SBX1981-51(21)



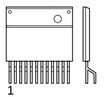
SE-135N

TDA8172



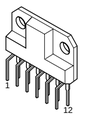
STR-F6656

MARKING SIDE VIEW

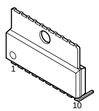


Zig-zag In -line Package
Pin 6~99

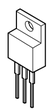
TA8200AH



LA6510



NJM7809-FA
TA7805S



SECTION 6
EXPLODED VIEWS

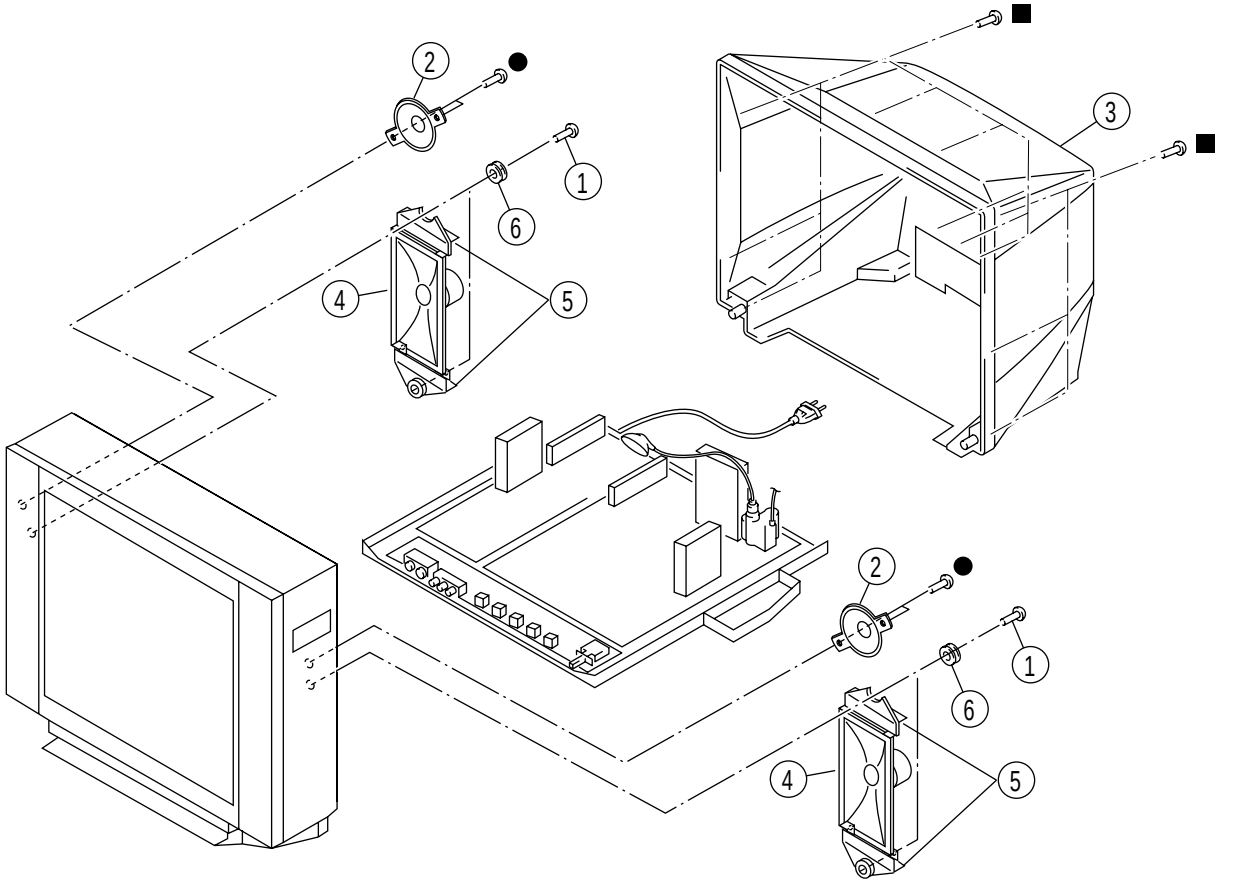
NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

6-1. SPEAKER BRACKET

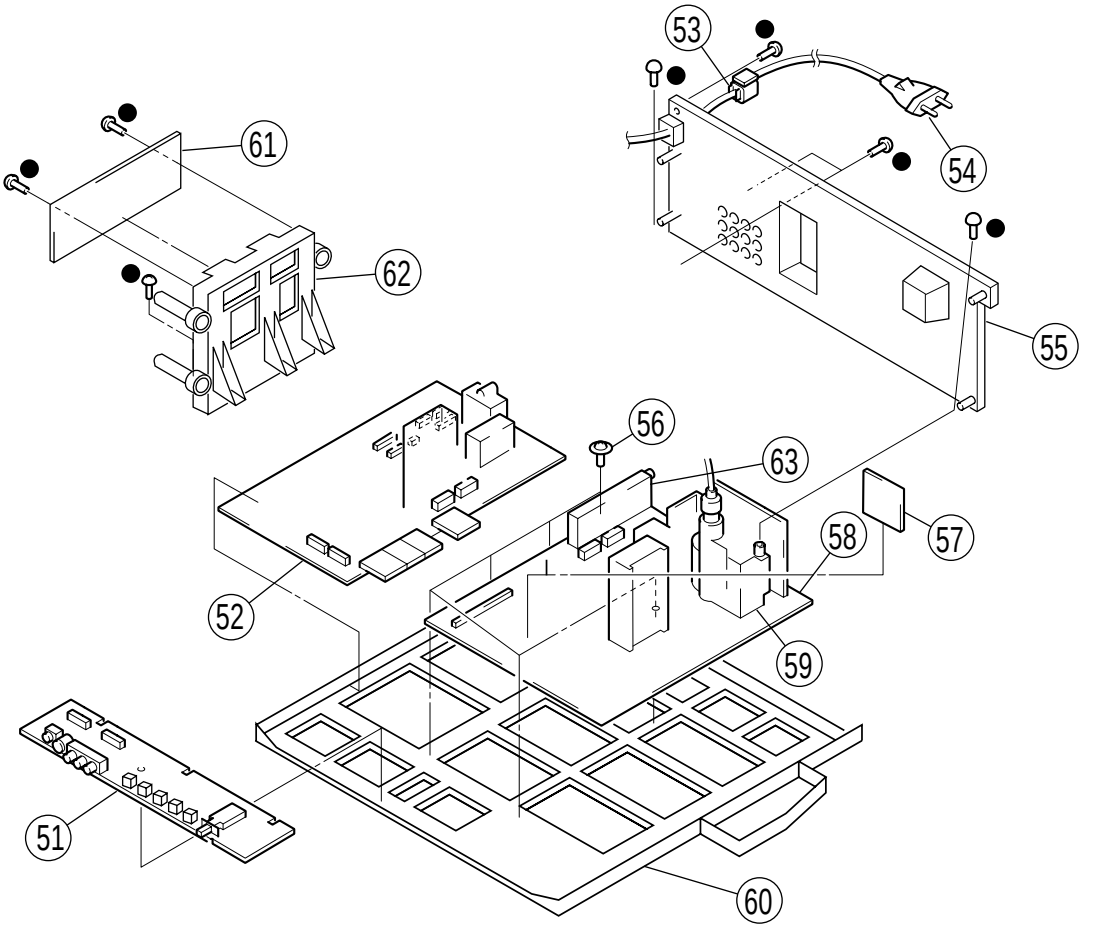
■: 7-685-663-71 SCREW +BVTP 4 × 16
●: 7-685-648-79 SCREW +BVTP 3 × 12



REF. NO.		PART NO.	DESCRIPTION	REMARK
1		4-302-404-03	SCREW (WASHER HEAD) (+P 4X16)	
2		1-529-190-11	SPEAKER (5CM)	
3	⚠	4-065-571-01	COVER, REAR	
4		1-503-902-11	SPEAKER (15 x 6.5CM)	
5		4-046-981-02	BRACKET, SPEAKER	
6	*	4-038-987-11	CUSHION, SPEAKER	

6-2. CHASSIS

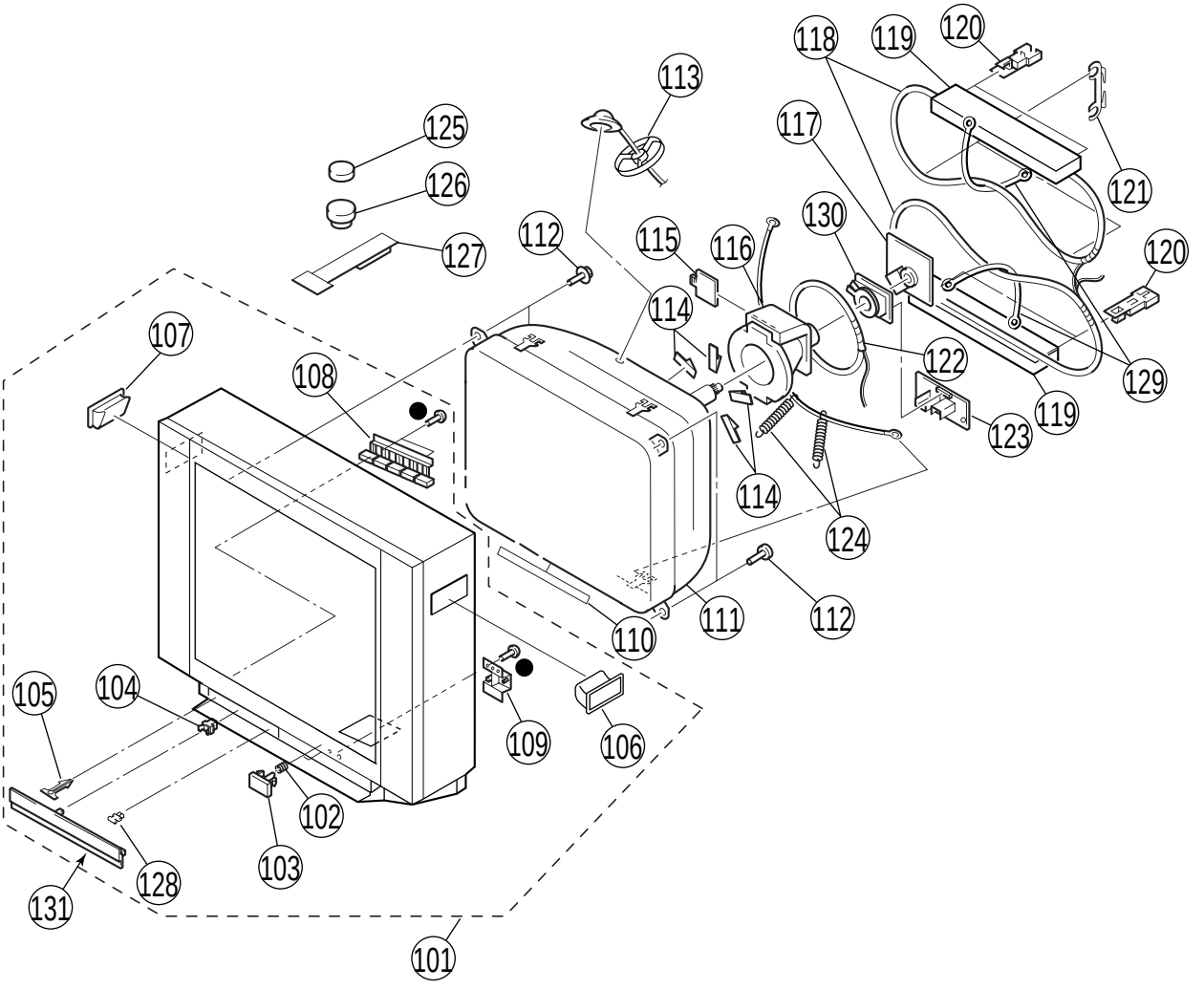
●: 7-685-648-79 SCREW BVTP 3 × 12



REF. NO.		PART NO.	DESCRIPTION	REMARK
51	*	A-1372-866-A	H3 BOARD, MOUNTED	
52	*	A-1136-131-A	B3 BOARD, COMPLETE	
53	⚠	4-022-115-21	HOLDER, AC CORD	
54	⚠	1-574-062-61	CORD, POWER (WITH CONNECTOR) 2.5A/250V	
55		4-066-684-22	BRACKET, TERMINAL	
56		4-046-797-01	SCREW (3X12), (+)BVTAP	
57	*	A-1131-417-A	B2 BOARD, MOUNTED	
58	*	A-1299-314-A	A BOARD, COMPLETE	
59	⚠	1-453-284-11	TRANSFORMER ASSY, FLYBACK (NX-4009//M3I4)	
60	*	4-066-681-04	BRACKET, MAIN	
61	*	A-1241-361-A	F BOARD, MOUNTED	
62	*	4-066-682-01	BRACKET, F PWB	
63		8-598-449-10	TUNER, FSS BTF-LG433	

6-3. PICTURE TUBE

●: 7-685-648-79 SCREW BVTP 3 × 12



REF. NO.		PART NO.	DESCRIPTION	REMARK
101		X-4038-159-2	BEZNET ASSY	102-109, 128, 131
102		4-036-405-11	SPRING, COMPRESSION	
103		4-065-508-01	BUTTON, POWER	
104		4-047-464-01	CATCHER, PUSH	
105		4-067-062-01	DAMPER (2P)	
106		X-4035-862-4	HANDLE ASSY (R)	
107		X-4035-861-4	HANDLE ASSY (L)	
108		4-065-509-01	BUTTON, CONTROL	
109	*	4-065-510-01	GUIDE, LIGHT	
110		4-054-468-01	SHEET, BLOTTING	
111	⚠	8-733-250-05	PICTURE TUBE (A60LPN70X)	
112		4-046-765-01	SCREW, TAPPING 7+CROWN WASHER	
113	*	3-704-372-41	HOLDER, HV CABLE	
114		4-046-600-11	SPACER, DY	
115		4-057-714-01	PIECE ASSY, TLH CORRECTION	

REF. NO.		PART NO.	DESCRIPTION	REMARK
116	⚠	1-451-475-11	DEFLECTION YOKE (Y25RSA)	
117	*	A-1331-911-A	C BOARD, MOUNTED	
118	⚠	1-403-619-81	COIL, DEMAGNETIZATION	
119	*	4-069-320-01	CUSHION (50X290), DGC	
120	*	4-065-572-01	CLIP (25RSN), DGC	
121		4-061-369-01	HOLDER, DEGAUSE COIL	
122		1-452-896-61	COIL, NA ROTATION (RT-200)	
123	*	A-1342-476-A	VM1 BOARD, MOUNTED	
124		4-369-318-61	SPRING, TENSION	
125		1-452-032-00	MAGNET,DISC	
126		1-452-014-11	CIRCULAR DISC MAGNET B	
127		4-051-734-42	PIECE B(120), CONV. CORRECT	
128		4-032-761-01	SHAFT (S), DOOR	
129		4-068-028-22	BAND, DGC	
130		8-453-011-21	NA299-S	
131		4-070-385-51	DOOR, CONTROL	

SECTION 7
ELECTRICAL PARTS LIST

A

NOTE:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- All resistors are in ohms
- F : nonflammable

CAPACITORS
- MF : µF, PF : µµF

COILS
- MMH : mH, UH : µH

REF.NO.	PART NO.	DESCRIPTION			REMARK
*	A-1299-314-A	A BOARD COMPLETE			
		**********			
	1-466-162-42	BLOCK, COM FILTER (CFB-4)			
*	4-040-983-41	TERMINAL BOARD (D)			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
	4-382-854-21	SCREW (M3X14), P, SW (+)			
		<CAPACITOR>			
C004	1-163-001-51	CERAMIC CHIP	220PF	10% 50V	
C005	1-163-001-51	CERAMIC CHIP	220PF	10% 50V	
C006	1-164-004-51	CERAMIC CHIP	0.1UF	10.00% 25V	
C007	1-104-664-11	ELECT	47UF	20.00% 16V	
C013	1-164-232-11	CERAMIC CHIP	0.01UF	10.00% 50V	
C014	1-104-664-11	ELECT	47UF	20.00% 25V	
C015	1-163-009-11	CERAMIC CHIP	0.001UF	10.00% 50V	
C016	1-163-243-11	CERAMIC CHIP	47PF	5.00% 50V	
C017	1-163-113-00	CERAMIC CHIP	68PF	10% 50V	
C019	1-104-664-11	ELECT	47UF	20.00% 25V	
C022	1-163-227-51	CERAMIC CHIP	10PF	0.50PF 50V	
C023	1-163-227-51	CERAMIC CHIP	10PF	0.50PF 50V	
C024	1-163-227-51	CERAMIC CHIP	10PF	0.50PF 50V	
C026	1-164-004-51	CERAMIC CHIP	0.1UF	10.00% 25V	
C027	1-164-004-51	CERAMIC CHIP	0.1UF	10.00% 25V	
C028	1-163-037-11	CERAMIC CHIP	0.022UF	10.00% 50V	
C030	1-126-965-11	ELECT	22UF	20.00% 50V	
C031	1-164-004-51	CERAMIC CHIP	0.1UF	10.00% 25V	
C032	1-107-823-51	CERAMIC CHIP	470000PF	10% 16V	
C034	1-163-031-11	CERAMIC CHIP	0.01UF	50V	
C041	1-163-251-11	CERAMIC CHIP	100PF	5.00% 50V	
C042	1-163-251-11	CERAMIC CHIP	100PF	5.00% 50V	
C043	1-163-251-11	CERAMIC CHIP	100PF	5.00% 50V	
C044	1-163-251-11	CERAMIC CHIP	100PF	5.00% 50V	
C047	1-163-251-11	CERAMIC CHIP	100PF	5.00% 50V	
C103	1-164-004-51	CERAMIC CHIP	0.1UF	10.00% 25V	
C104	1-104-665-11	ELECT	100UF	20.00% 10V	
C107	1-163-005-51	CERAMIC CHIP	470PF	10% 50V	
C108	1-104-664-11	ELECT	47UF	20.00% 16V	
C109	1-163-005-51	CERAMIC CHIP	470PF	10% 50V	
C110	1-163-005-51	CERAMIC CHIP	470PF	10% 50V	
C111	1-163-005-51	CERAMIC CHIP	470PF	10% 50V	
C112	1-104-664-11	ELECT	47UF	20.00% 16V	
C113	1-104-664-11	ELECT	47UF	20.00% 25V	
C114	1-126-967-11	ELECT	47UF	20.00% 50V	
C300	1-164-505-11	CERAMIC CHIP	2.2UF	16V	
C301	1-126-935-11	ELECT	470UF	20.00% 16V	
C302	1-163-005-51	CERAMIC CHIP	470PF	10% 50V	
C303	1-125-798-91	ELECT	0.47UF	20.00% 63V	
C304	1-126-967-11	ELECT	47UF	20.00% 50V	
C305	1-164-004-51	CERAMIC CHIP	0.1UF	10.00% 25V	
C306	1-163-233-51	CERAMIC CHIP	18PF	5.00% 50V	
C307	1-163-233-51	CERAMIC CHIP	18PF	5.00% 50V	
C308	1-163-125-00	CERAMIC CHIP	220PF	5.00% 50V	
C309	1-126-957-11	ELECT	0.22UF	20.00% 50V	
C311	1-125-797-91	ELECT	10UF	20.00% 50V	
C312	1-164-346-51	CERAMIC CHIP	1UF	10% 16V	
C313	1-164-346-51	CERAMIC CHIP	1UF	10% 16V	
C315	1-164-004-51	CERAMIC CHIP	0.1UF	10.00% 25V	
C316	1-104-664-11	ELECT	47UF	20.00% 25V	
C317	1-164-004-51	CERAMIC CHIP	0.1UF	10.00% 25V	
C318	1-163-031-11	CERAMIC CHIP	0.01UF	50V	
C319	1-163-031-11	CERAMIC CHIP	0.01UF	50V	
C320	1-163-031-11	CERAMIC CHIP	0.01UF	50V	
C322	1-163-005-51	CERAMIC CHIP	470PF	10% 50V	
C323	1-126-965-11	ELECT	22UF	20.00% 50V	
C324	1-163-017-00	CERAMIC CHIP	0.0047UF	10.00% 50V	
C325	1-125-799-91	ELECT	1UF	20.00% 63V	
C327	1-126-965-11	ELECT	22UF	20.00% 50V	
C328	1-164-004-51	CERAMIC CHIP	0.1UF	10.00% 25V	
C329	1-126-965-11	ELECT	22UF	20.00% 50V	
C330	1-164-004-51	CERAMIC CHIP	0.1UF	10.00% 25V	
C331	1-125-805-91	ELECT	4.7UF	20.00% 50V	
C332	1-125-805-91	ELECT	4.7UF	20.00% 50V	
C335	1-164-004-51	CERAMIC CHIP	0.1UF	10.00% 25V	
C336	1-164-004-51	CERAMIC CHIP	0.1UF	10.00% 25V	
C337	1-125-800-91	ELECT	2.2UF	20.00% 63V	
C338	1-163-017-00	CERAMIC CHIP	0.0047UF	10.00% 50V	
C341	1-115-340-51	CERAMIC CHIP	0.22UF	10.00% 25V	
C342	1-163-125-00	CERAMIC CHIP	220PF	5.00% 50V	
C502	1-163-275-11	CERAMIC CHIP	0.001UF	5.00% 50V	
C506	1-107-638-11	ELECT	33UF	20.00% 160V	
C507	1-161-830-00	CERAMIC	0.0047UF	500V	
C510	1-102-112-00	CERAMIC	330PF	10.00% 50V	
C513	1-163-263-51	CERAMIC CHIP	330PF	10% 50V	
C514	1-106-383-00	MYLAR	0.047UF	10.00% 200V	
C517	1-164-182-11	CERAMIC CHIP	3300PF	10% 50V	
C518	1-104-665-11	ELECT	100UF	20.00% 10V	
C519	1-102-212-00	CERAMIC	820PF	10.00% 500V	
C521	1-126-934-11	ELECT	220UF	20.00% 16V	
C522	1-126-933-11	ELECT	100UF	20.00% 16V	
C523	1-102-002-00	CERAMIC	680PF	10.00% 500V	
C524	1-126-967-11	ELECT	47UF	20.00% 50V	
C526	1-130-495-00	MYLAR	0.1UF	5.00% 50V	
C527	1-102-820-00	CERAMIC	330PF	5.00% 50V	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

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REF.NO.		PART NO.	DESCRIPTION		REMARK
C528		1-161-754-00	CERAMIC	0.001UF	10.00% 2KV
C530		1-137-372-11	MYLAR	0.022UF	5.00% 50V
C531		1-125-800-91	ELECT	2.2UF	20.00% 63V
C532		1-126-941-11	ELECT	470UF	20.00% 25V
C533		1-126-941-11	ELECT	470UF	20.00% 25V
C536		1-136-165-00	MYLAR	0.1UF	5.00% 50V
C537		1-126-969-11	ELECT	220UF	20.00% 50V
C538		1-136-617-11	FILM	0.019UF	3.00% 2KV
C539		1-130-959-61	FILM	0.047UF	5.00% 400V
C540		1-136-171-00	MYLAR	0.33UF	5.00% 50V
C546		1-165-319-11	CERAMIC CHIP	0.1UF	50V
C548		1-163-143-00	CERAMIC CHIP	0.0012UF	5.00% 50V
C549		1-163-017-00	CERAMIC CHIP	0.0047UF	10.00% 50V
C550		1-106-220-00	MYLAR	0.1UF	10.00% 100V
C551		1-125-799-91	ELECT	1UF	20.00% 63V
C552		1-162-116-00	CERAMIC	680PF	10.00% 2KV
C553		1-162-116-00	CERAMIC	680PF	10.00% 2KV
C554		1-137-417-11	MYLAR	0.0047UF	10.00% 200V
C556		1-126-941-11	ELECT	470UF	20.00% 25V
C557		1-126-941-11	ELECT	470UF	20.00% 25V
C558		1-123-024-21	ELECT	33UF	160V
C560		1-102-228-00	CERAMIC	470PF	10.00% 500V
C561		1-129-708-91	FILM	0.0033UF	5.00% 630V
C562		1-102-228-00	CERAMIC	470PF	10.00% 500V
C563		1-164-344-11	CERAMIC CHIP	0.068UF	10.00% 25V
C564		1-163-038-00	CERAMIC CHIP	0.1UF	25V
C565		1-107-655-11	ELECT	47UF	20.00% 250V
C566		1-102-244-00	CERAMIC	220PF	10.00% 500V
C567		1-115-520-11	FILM	0.68UF	5.00% 250V
C568		1-102-228-00	CERAMIC	470PF	10.00% 500V
C570		1-115-521-11	FILM	0.82UF	5.00% 250V
C572		1-107-846-11	FILM	0.1UF	5.00% 250V
C573		1-106-387-00	MYLAR	0.068UF	10.00% 200V
C574		1-107-636-11	ELECT	10UF	20.00% 160V
C576		1-130-495-00	MYLAR	0.1UF	5.00% 50V
C577		1-106-395-00	MYLAR	0.15UF	10.00% 200V
C582		1-164-004-51	CERAMIC CHIP	0.1UF	10.00% 25V
C586		1-216-295-61	SHORT CHIP	0	
C600	⚠	1-104-705-11	MYLAR	0.1UF	20.00% 250V
C601		1-130-338-91	FILM	0.01UF	5.00% 630V
C602	⚠	1-104-705-11	MYLAR	0.1UF	20.00% 250V
C603		1-104-664-11	ELECT	47UF	20.00% 25V
C604		1-163-009-11	CERAMIC CHIP	0.001UF	10.00% 50V
C605	⚠	1-119-886-51	CERAMIC	470PF	10.00% 250V
C606	⚠	1-119-886-51	CERAMIC	470PF	10.00% 250V
C607		1-161-830-00	CERAMIC	0.0047UF	99% 500V
C608		1-161-830-00	CERAMIC	0.0047UF	99% 500V
C609		1-126-968-11	ELECT	100UF	20.00% 50V
C610		1-125-797-91	ELECT	10UF	20.00% 50V
C611		1-161-830-00	CERAMIC	0.0047UF	99% 500V
C612		1-161-830-00	CERAMIC	0.0047UF	99% 500V
C613		1-125-906-11	ELECT	560UF	20.00% 450V
C614		1-125-797-91	ELECT	10UF	20.00% 50V
C615	⚠	1-119-886-51	CERAMIC	470PF	10.00% 250V
C616		1-130-202-00	FILM	0.022UF	5.00% 400V
C617		1-107-792-11	CERAMIC	100PF	5.00% 1KV
C618		1-125-893-11	FILM	680PF	3.00% 1.5KV

REF.NO.		PART NO.	DESCRIPTION		REMARK
C619	⚠	1-119-886-51	CERAMIC	470PF	10.00% 250V
C620		1-163-133-00	CERAMIC CHIP	470PF	10% 50V
C621		1-102-114-00	CERAMIC	470PF	10.00% 50V
C622		1-102-119-00	CERAMIC	0.0015UF	10.00% 50V
C623		1-104-665-11	ELECT	100UF	20.00% 25V
C624		1-125-772-91	CERAMIC	1500PF	10.00% 2KV
C626		1-102-002-00	CERAMIC	680PF	10.00% 500V
C627		1-102-002-00	CERAMIC	680PF	10.00% 500V
C628		1-126-952-11	ELECT	1000UF	20.00% 35V
C629		1-125-797-91	ELECT	10UF	20.00% 50V
C630		1-125-494-11	ELECT(BLOCK)	560UF	20.00% 160V
C632		1-128-339-11	ELECT	2200UF	20.00% 16V
C633		1-104-999-11	MYLAR	0.1UF	10.00% 200V
C634		1-126-933-11	ELECT	100UF	20.00% 16V
C635		1-104-665-11	ELECT	100UF	20.00% 10V
C636		1-104-760-51	CERAMIC CHIP	0.047UF	10.00% 50V
C641		1-102-002-00	CERAMIC	680PF	10.00% 500V
C642		1-107-890-11	ELECT	2200UF	20.00% 25V
C643		1-104-665-11	ELECT	100UF	20.00% 10V
C644		1-104-331-11	CERAMIC	0.0022UF	10.00% 1KV
C645		1-137-605-11	MYLAR	0.01UF	10.00% 250V
C646		1-107-679-91	ELECT	10UF	20.00% 450V
C647		1-163-275-11	CERAMIC CHIP	0.001UF	5.00% 50V
C649		1-126-940-11	ELECT	330UF	20.00% 25V
C650		1-163-275-11	CERAMIC CHIP	0.001UF	5.00% 50V
C651		1-163-133-00	CERAMIC CHIP	470PF	10% 50V
C652		1-126-965-11	ELECT	22UF	20.00% 50V
C653		1-104-664-11	ELECT	47UF	20.00% 25V
C655	⚠	1-119-886-51	CERAMIC	470PF	10.00% 250V
C657		1-101-821-00	CERAMIC	0.0022UF	500V
C912		1-164-004-51	CERAMIC CHIP	0.1UF	10.00% 25V
C913		1-104-665-11	ELECT	100UF	20.00% 10V

<CONNECTOR>

CN101	*	1-779-890-11	CONNECTOR, BOARD TO BOARD 10P
CN102	*	1-779-889-11	CONNECTOR, BOARD TO BOARD 8P
CN104		1-695-915-11	TAB (CONTACT)
CN105	*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P
CN106	*	1-564-506-11	PLUG, CONNECTOR 3P
CN201	*	1-564-508-11	PLUG, CONNECTOR 5P
CN202	*	1-508-847-00	PIN, CONNECTOR 4P
CN304	*	1-766-955-11	CONNECTOR, BOARD TO BOARD 11P
CN305	*	1-564-509-11	PLUG, CONNECTOR 6P
CN501	*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P
CN502	*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P
CN505		1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P
CN507	*	1-564-509-11	PLUG, CONNECTOR 6P
CN508		1-695-915-11	TAB (CONTACT)
CN509		1-695-915-11	TAB (CONTACT)
CN601	*	1-580-843-11	PIN, CONNECTOR (POWER)
CN602	*	1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P
CN603	*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P
CN604	*	1-573-963-11	PIN, CONNECTOR (PC BOARD) 3P
CN608	*	1-564-507-11	PLUG, CONNECTOR 4P
CN904	*	1-564-512-11	PLUG, CONNECTOR 9P

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REF.NO.	PART NO.	DESCRIPTION	REMARK
		<DIODE>	
D001	8-719-988-61	DIODE 1SS355TE-17	
D002	8-719-988-61	DIODE 1SS355TE-17	
D005	8-719-988-61	DIODE 1SS355TE-17	
D006	1-216-295-61	SHORT CHIP 0	
D300	1-216-295-61	SHORT CHIP 0	
D301	8-719-988-61	DIODE 1SS355TE-17	
D303	8-719-988-61	DIODE 1SS355TE-17	
D304	8-719-988-61	DIODE 1SS355TE-17	
D305	8-719-988-61	DIODE 1SS355TE-17	
D306	8-719-988-61	DIODE 1SS355TE-17	
D307	8-719-988-61	DIODE 1SS355TE-17	
D308	8-719-988-61	DIODE 1SS355TE-17	
D309	8-719-069-54	DIODE UDZS-TE17-5.1B	
D311	8-719-988-61	DIODE 1SS355TE-17	
D312	8-719-988-61	DIODE 1SS355TE-17	
D313	8-719-988-61	DIODE 1SS355TE-17	
D315	8-719-988-61	DIODE 1SS355TE-17	
D316	8-719-978-33	DIODE UDZS-TE17-6.8B	
D320	8-719-069-60	DIODE UDZS-TE17-9.1B	
D321	8-719-069-60	DIODE UDZS-TE17-9.1B	
D504	8-719-936-85	DIODE RGP10GPKG23	
D505	8-719-988-61	DIODE 1SS355TE-17	
D506	8-719-921-20	DIODE 1SS119-25TD	
D507	8-719-988-61	DIODE 1SS355TE-17	
D508	8-719-988-61	DIODE 1SS355TE-17	
D509	1-216-073-61	RES-CHIP 10G 5%	1/10W
D510	8-719-988-61	DIODE 1SS355TE-17	
D511	8-719-988-61	DIODE 1SS355TE-17	
D512	8-719-988-61	DIODE 1SS355TE-17	
D513	8-719-908-03	DIODE GP08DPKG23	
D517	8-719-312-71	DIODE RS3FS	
D518	8-719-074-35	DIODE RU4AM-T4	
D519	8-719-312-71	DIODE RS3FS	
D520	1-216-295-61	SHORT CHIP 0	
D521	8-719-936-85	DIODE RGP10GPKG23	
D522	8-719-936-85	DIODE RGP10GPKG23	
D523	8-719-936-85	DIODE RGP10GPKG23	
D527	8-719-908-03	DIODE GP08DPKG23	
D528	8-719-908-03	DIODE GP08DPKG23	
D531	8-719-988-61	DIODE 1SS355TE-17	
D532	8-719-988-61	DIODE 1SS355TE-17	
D534	1-216-295-61	SHORT CHIP 0	
D600	8-719-921-20	DIODE 1SS119-25TD	
D602	8-719-921-20	DIODE 1SS119-25TD	
D603	8-719-150-92	DIODE RD33ES-T1B2	
D604	8-719-028-72	DIODE RGP02-17PKG23	
D605	8-719-510-27	DIODE D3SB60	
D606	8-719-108-18	DIODE TF541M	
D607	8-719-404-50	DIODE MA111-TX	
D608	8-719-110-53	DIODE RD20ES-T1B2	
D609	8-719-075-79	DIODE BYV26E/23	
D610	8-719-210-21	DIODE 11EQS04-NTA1B	
D611	8-719-073-86	DIODE AU-01Z-V1	
D613	8-719-073-86	DIODE AU-01Z-V1	
D614	8-719-073-86	DIODE AU-01Z-V1	
D618	8-719-067-18	DIODE RN4Z	
D620	8-719-110-72	DIODE RD30ES-T1B1	
D621	8-719-071-38	DIODE D5S6M	
D622	8-719-077-49	DIODE D3L60	
D623	8-719-056-91	DIODE UDZ-TE-17-15B	
D624	8-719-404-50	DIODE MA111-(K8).S0	
D625	8-719-069-60	DIODE UDZS-TE17-10B	
D627	8-719-067-18	DIODE RN4Z	
D628	8-719-921-20	DIODE 1SS119-25TD	
D631	8-719-068-00	DIODE ERC04-06SE	
D632	8-719-068-00	DIODE ERC04-06SE	
D633	8-719-948-45	DIODE ERA22-08TP3	
D634	8-719-404-50	DIODE MA111-(K8).S0	
D635	8-719-016-74	DIODE 1SS352-TPH3	
D635	8-719-073-01	DIODE MA111-(K8).S0	
D636	8-719-510-02	DIODE D1NS4-TA2	
D637	8-719-109-96	DIODE RD6.8ES-T1B1	
D638	8-719-200-82	DIODE 11ES2-TB5	
		<CONNECTOR>	
DY1	* 1-580-798-11	CONNECTOR PIN (DY) 6P	
		<FERRITE BEAD>	
FB501	1-410-397-21	FERRITE 1.1UH	
FB502	1-410-397-21	FERRITE 1.1UH	
FB600	1-410-397-21	FERRITE 1.1UH	
FB601	1-410-397-21	FERRITE 1.1UH	
FB602	1-410-397-21	FERRITE 1.1UH	
FB603	1-410-397-21	FERRITE 1.1UH	
FB604	1-412-911-31	FERRITE 0UH	
FB605	1-412-911-31	FERRITE 0UH	
FB606	1-412-911-31	FERRITE 0UH	
FB607	1-410-397-21	FERRITE 1.1UH	
FB608	1-412-911-31	FERRITE 0UH	
FB611	1-410-397-21	FERRITE 1.1UH	
FB612	1-410-397-21	FERRITE 1.1UH	
FB613	1-410-397-21	FERRITE 1.1UH	
FB615	1-410-397-21	FERRITE 1.1UH	
		<IC>	
IC001	8-752-905-64	IC CXP86461-621S	
IC002	8-759-371-21	IC MM1319AFBE	
IC003	8-759-527-71	IC M24C08-BN6	
IC301	8-752-090-41	IC CXA2139S	
IC502	8-759-700-07	IC NJM2903M-TE2	
IC503	8-759-980-58	IC TDA8172	
IC601	8-749-014-48	IC STR-F6656	
IC602	8-749-920-61	IC SE-135N	
IC603	8-759-701-59	IC L7809CV	
IC604	8-759-231-53	IC L7805CV	
		<CHIP CONDUCTOR>	
JR001	1-216-295-61	SHORT CHIP 0	
JR002	1-216-295-61	SHORT CHIP 0	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

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REF.NO.	PART NO.	DESCRIPTION		REMARK
JR004	1-216-295-61	SHORT CHIP	0	
JR005	1-216-295-61	SHORT CHIP	0	
JR006	1-216-295-61	SHORT CHIP	0	
JR007	1-216-295-61	SHORT CHIP	0	
JR008	1-216-295-61	SHORT CHIP	0	
JR010	1-216-295-61	SHORT CHIP	0	
JR012	1-216-295-61	SHORT CHIP	0	
JR014	1-216-295-61	SHORT CHIP	0	
JR015	1-216-295-61	SHORT CHIP	0	
JR016	1-216-295-61	SHORT CHIP	0	
JR102	1-216-295-61	SHORT CHIP	0	
JR109	1-216-295-61	SHORT CHIP	0	
JR301	1-216-295-61	SHORT CHIP	0	
JR303	1-216-295-61	SHORT CHIP	0	
JR500	1-216-295-61	SHORT CHIP	0	
JR501	1-216-295-61	SHORT CHIP	0	
JR503	1-216-295-61	SHORT CHIP	0	
JR600	1-216-295-61	SHORT CHIP	0	
		<COIL>		
L002	1-414-856-11	INDUCTOR	10UH	
L003	1-414-180-11	INDUCTOR	3.3UH	
L005	1-414-233-22	INDUCTOR CHIP	0UH	
L102	1-414-856-11	INDUCTOR	10UH	
L103	1-414-856-11	INDUCTOR	10UH	
L104	1-414-856-11	INDUCTOR	10UH	
L105	1-414-856-11	INDUCTOR	10UH	
L301	1-414-189-31	INDUCTOR	100UH	
L302	1-414-185-41	INDUCTOR	22UH	
L501	1-412-525-31	INDUCTOR	10UH	
L502	1-422-613-11	COIL, AIR CORE		
L503	1-412-525-31	INDUCTOR	10UH	
L504	1-412-525-31	INDUCTOR	10UH	
L507	1-459-111-00	INDUCTOR	10MH	
L511	1-406-978-11	INDUCTOR	150UH	
L512	1-412-549-31	INDUCTOR	1MH	
L513	1-412-549-31	INDUCTOR	1MH	
L515	1-459-104-00	COIL, WITH CORE		
L518	1-414-187-11	INDUCTOR	47UH	
L601	1-412-527-11	INDUCTOR	15UH	
L905	1-414-856-11	INDUCTOR	10UH	
		<PHOTO COUPLER>		
PH600 ⚠	8-749-924-35	PHOTO COUPLER ON3171-R		
		<TRANSISTOR>		
Q001	8-729-230-47	TRANSISTOR 2SA1162-YG-TE85L		
Q002	8-729-230-50	TRANSISTOR 2SC2712-YG-TE85L		
Q003	8-729-424-11	TRANSISTOR UN2111-TX		
Q004	8-729-421-20	TRANSISTOR UN2211-TX		
Q101	8-729-230-50	TRANSISTOR 2SC2712-YG-TE85L		
Q301	8-729-230-47	TRANSISTOR 2SA1162-YG-TE85L		
Q302	8-729-230-50	TRANSISTOR 2SC2712-YG-TE85L		
Q303	8-729-230-47	TRANSISTOR 2SA1162-YG-TE85L		
Q305	8-729-230-47	TRANSISTOR 2SA1162-YG-TE85L		
Q306	8-729-230-47	TRANSISTOR 2SA1162-YG-TE85L		
Q307	8-729-230-50	TRANSISTOR 2SC2712-YG-TE85L		
Q308	8-729-230-47	TRANSISTOR 2SA1162-YG-TE85L		
Q312	8-729-230-47	TRANSISTOR 2SA1162-YG-TE85L		
Q313	8-729-230-50	TRANSISTOR 2SC2712-YG-TE85L		
Q315	8-729-421-17	TRANSISTOR UN2213-TX		
Q503	8-729-230-50	TRANSISTOR 2SC2712-YG-TE85L		
Q505	8-729-931-45	TRANSISTOR IRF614		
Q506	8-729-119-80	TRANSISTOR 2SC2688-LK		
Q507	8-729-230-47	TRANSISTOR 2SA1162-YG-TE85L		
Q509	8-729-230-50	TRANSISTOR 2SC2712-YG-TE85L		
Q511	8-729-048-07	TRANSISTOR 2SD2578-CA		
Q600	8-729-139-96	TRANSISTOR 2SC2785TP-HFE		
Q601	8-729-023-22	TRANSISTOR 2SD2114KT146		
Q602	8-729-230-50	TRANSISTOR 2SC2712-YG-TE85L		
Q603	8-729-424-11	TRANSISTOR UN2111-TX		
Q604	8-729-208-12	TRANSISTOR 2SA1091R-TPE2		
Q605	8-729-044-30	TRANSISTOR 2SK2845-LB102		
Q606	8-729-230-50	TRANSISTOR 2SC2712-YG-TE85L		
Q607	8-729-922-37	TRANSISTOR 2SD2144S-TP-UVW		
Q608	8-729-230-50	TRANSISTOR 2SC2712-YG-TE85L		
		<RESISTOR>		
R001	1-414-233-22	INDUCTOR CHIP	0UH	
R002	1-216-025-61	RES-CHIP	100 5% 1/10W	
R003	1-216-073-61	RES-CHIP	10G 5% 1/10W	
R004	1-216-025-61	RES-CHIP	100 5% 1/10W	
R005	1-216-025-61	RES-CHIP	100 5% 1/10W	
R008	1-216-065-61	RES-CHIP	4.7K 5% 1/10W	
R010	1-216-065-61	RES-CHIP	4.7K 5% 1/10W	
R011	1-216-065-61	RES-CHIP	4.7K 5% 1/10W	
R012	1-216-065-61	RES-CHIP	4.7K 5% 1/10W	
R013	1-216-065-61	RES-CHIP	4.7K 5% 1/10W	
R014	1-216-025-61	RES-CHIP	100 5% 1/10W	
R015	1-216-025-61	RES-CHIP	100 5% 1/10W	
R018	1-216-033-61	RES-CHIP	220 5% 1/10W	
R019	1-216-073-61	RES-CHIP	10G 5% 1/10W	
R021	1-216-073-61	RES-CHIP	10G 5% 1/10W	
R022	1-216-025-61	RES-CHIP	100 5% 1/10W	
R023	1-216-049-61	RES-CHIP	1K 5% 1/10W	
R024	1-216-063-61	RES-CHIP	3.9K 5% 1/10W	
R025	1-216-063-61	RES-CHIP	3.9K 5% 1/10W	
R026	1-216-063-61	RES-CHIP	3.9K 5% 1/10W	
R027	1-216-049-61	RES-CHIP	1K 5% 1/10W	
R029	1-216-049-61	RES-CHIP	1K 5% 1/10W	
R031	1-216-049-61	RES-CHIP	1K 5% 1/10W	
R032	1-216-025-61	RES-CHIP	100 5% 1/10W	
R034	1-216-049-61	RES-CHIP	1K 5% 1/10W	
R035	1-216-025-61	RES-CHIP	100 5% 1/10W	
R036	1-216-025-61	RES-CHIP	100 5% 1/10W	
R037	1-216-025-61	RES-CHIP	100 5% 1/10W	
R038	1-216-049-61	RES-CHIP	1K 5% 1/10W	
R040	1-216-025-61	RES-CHIP	100 5% 1/10W	
R041	1-216-025-61	RES-CHIP	100 5% 1/10W	
R042	1-216-295-61	SHORT CHIP	0	
R043	1-216-049-61	RES-CHIP	1K 5% 1/10W	

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REF.NO.	PART NO.	DESCRIPTION			REMARK
R044	1-216-025-61	RES-CHIP	100	5%	1/10W
R045	1-414-233-22	INDUCTOR CHIP	0UH		
R046	1-216-049-61	RES-CHIP	1K	5%	1/10W
R047	1-414-233-22	INDUCTOR CHIP	0UH		
R048	1-216-073-61	RES-CHIP	10G	5%	1/10W
R049	1-216-073-61	RES-CHIP	10G	5%	1/10W
R050	1-216-073-61	RES-CHIP	10G	5%	1/10W
R052	1-216-053-61	RES-CHIP	1.5K	5%	1/10W
R053	1-216-049-61	RES-CHIP	1K	5%	1/10W
R054	1-216-049-61	RES-CHIP	1K	5%	1/10W
R055	1-216-073-61	RES-CHIP	10G	5%	1/10W
R056	1-216-073-61	RES-CHIP	10G	5%	1/10W
R061	1-216-295-61	SHORT CHIP	0		
R062	1-216-041-61	RES-CHIP	470	5%	1/10W
R063	1-216-041-61	RES-CHIP	470	5%	1/10W
R064	1-216-041-61	RES-CHIP	470	5%	1/10W
R065	1-216-041-61	RES-CHIP	470	5%	1/10W
R066	1-216-049-61	RES-CHIP	1K	5%	1/10W
R067	1-216-049-61	RES-CHIP	1K	5%	1/10W
R105	1-216-295-61	SHORT CHIP	0		
R109	1-216-041-61	RES-CHIP	470	5%	1/10W
R111	1-216-025-61	RES-CHIP	100	5%	1/10W
R112	1-216-025-61	RES-CHIP	100	5%	1/10W
R113	1-216-025-61	RES-CHIP	100	5%	1/10W
R225	1-216-033-61	RES-CHIP	220	5%	1/10W
R226	1-216-033-61	RES-CHIP	220	5%	1/10W
R227	1-216-033-61	RES-CHIP	220	5%	1/10W
R237	1-216-295-61	SHORT CHIP	0		
R301	1-216-113-61	RES-CHIP	470K	5%	1/10W
R302	1-216-295-61	SHORT CHIP	0		
R303	1-216-049-61	RES-CHIP	1K	5%	1/10W
R304	1-216-073-61	RES-CHIP	10G	5%	1/10W
R306	1-216-085-00	METAL CHIP	33K	5%	1/10W
R308	1-216-025-61	RES-CHIP	100	5%	1/10W
R309	1-216-025-61	RES-CHIP	100	5%	1/10W
R310	1-216-025-61	RES-CHIP	100	5%	1/10W
R311	1-216-017-61	RES-CHIP	47	5%	1/10W
R312	1-216-041-61	RES-CHIP	470	5%	1/10W
R313	1-216-053-61	RES-CHIP	1.5K	5%	1/10W
R314	1-216-043-61	RES-CHIP	560	5%	1/10W
R316	1-216-053-61	RES-CHIP	1.5K	5%	1/10W
R317	1-216-077-61	RES-CHIP	15K		(2012)
R318	1-216-051-61	RES-CHIP	1.2K	5%	1/10W
R319	1-216-025-61	RES-CHIP	100	5%	1/10W
R320	1-216-065-61	RES-CHIP	4.7K	5%	1/10W
R321	1-216-073-61	RES-CHIP	10G	5%	1/10W
R322	1-216-033-61	RES-CHIP	220	5%	1/10W
R326	1-216-029-61	RES-CHIP	150	5%	1/10W
R327	1-216-033-61	RES-CHIP	220	5%	1/10W
R331	1-216-295-61	SHORT CHIP	0		
R332	1-216-033-61	RES-CHIP	220	5%	1/10W
R333	1-216-083-61	RES-CHIP	27K	5%	1/10W
R334	1-216-125-00	METAL CHIP	1.5M	5%	1/10W
R335	1-216-045-00	METAL CHIP	680	5%	1/10W
R338	1-216-037-61	RES-CHIP	330	5%	1/10W
R339	1-216-033-61	RES-CHIP	220	5%	1/10W
R340	1-216-025-61	RES-CHIP	100	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R345	1-216-081-61	RES-CHIP	22K	5%	1/10W
R346	1-216-051-61	RES-CHIP	1.2K	5%	1/10W
R347	1-216-051-61	RES-CHIP	1.2K	5%	1/10W
R348	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R349	1-216-073-61	RES-CHIP	10G	5%	1/10W
R350	1-216-061-61	RES-CHIP	3.3G	5%	1/10W
R351	1-216-053-61	RES-CHIP	1.5K	5%	1/10W
R354	1-216-057-61	RES-CHIP	2.2K	5%	1/10W
R355	1-216-057-61	RES-CHIP	2.2K	5%	1/10W
R356	1-216-057-61	RES-CHIP	2.2K	5%	1/10W
R357	1-216-079-00	METAL CHIP	18K	5%	1/10W
R358	1-216-049-61	RES-CHIP	1K	5%	1/10W
R359	1-216-033-61	RES-CHIP	220	5%	1/10W
R360	1-216-033-61	RES-CHIP	220	5%	1/10W
R361	1-216-073-61	RES-CHIP	10G	5%	1/10W
R362	1-216-075-61	RES-CHIP	12K	5%	1/10W
R363	1-216-079-00	METAL CHIP	18K	5%	1/10W
R364	1-216-295-61	SHORT CHIP	0		
R365	1-216-033-61	RES-CHIP	220	5%	1/10W
R366	1-216-073-61	RES-CHIP	10G	5%	1/10W
R367	1-216-073-61	RES-CHIP	10G	5%	1/10W
R368	1-216-073-61	RES-CHIP	10G	5%	1/10W
R370	1-216-033-61	RES-CHIP	220	5%	1/10W
R373	1-216-025-61	RES-CHIP	100	5%	1/10W
R376	1-216-081-61	RES-CHIP	22K	5%	1/10W
R377	1-216-121-61	RES-CHIP	1M	5%	1/10W
R378	1-216-031-61	RES-CHIP	180	5%	1/10W
R500	1-220-958-91	RES, METAL FILM	1K		
R501	1-216-049-61	RES-CHIP	1K	5%	1/10W
R505	1-216-105-61	METAL CHIP	220K	5%	1/10W
R506	1-216-089-61	RES-CHIP	47K		(2012)
R507	1-249-389-11	CARBON	4.7	5%	1/4W
R508	1-216-473-11	METAL OXIDE	56	5%	3W
R509	1-215-910-00	METAL OXIDE	68	5%	3W
R510	1-215-884-11	METAL OXIDE	47	5%	2W
R511	1-215-910-00	METAL OXIDE	68	5%	3W
R515	1-215-913-11	METAL OXIDE	220	5%	3W
R516	1-216-081-61	RES-CHIP	22K	5%	1/10W
R518	1-220-948-91	METAL	100	5%	1/2W
R519	1-215-912-11	METAL OXIDE	150	5%	3W
R520	1-215-445-00	METAL	10K	1%	1/4W
R522	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R523	1-220-952-91	METAL MELF	330	5%	1/2W
R525	1-208-854-11	METAL CHIP	1M	0.5%	1/10W
R526	1-208-804-11	METAL CHIP	8.2K	0.5%	1/10W
R527	1-216-001-61	RES-CHIP	10	5%	1/10W
R528	1-208-814-91	METAL CHIP	22K	0.5%	1/10W
R529	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R531	1-220-963-91	METAL MELF	3.3K	5%	1/2W
R533	1-220-958-91	RES, METAL FILM	1K		
R534	1-216-361-00	METAL OXIDE	0.22	5%	2W
R535	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R536	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R537	1-208-814-91	METAL CHIP	22K	0.5%	1/10W
R540	1-216-065-61	RES-CHIP	4.7K	5%	1/10W
R541	1-216-065-61	RES-CHIP	4.7K	5%	1/10W
R542	1-216-295-61	SHORT CHIP	0		

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

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REF.NO.	PART NO.	DESCRIPTION			REMARK
R543	1-249-426-11	CARBON	5.6K	5%	1/4W
R544	1-215-917-11	METAL OXIDE	1K	5%	3W
R545	1-216-077-61	RES-CHIP	15K		(2012)
R546	1-216-077-61	RES-CHIP	15K		(2012)
R547	1-216-085-00	METAL CHIP	33K	5%	1/10W
R549	1-215-453-00	METAL	22K	1%	1/4W
R550	1-216-097-61	RES-CHIP	100K	5%	1/10W
R551	1-220-961-91	METAL CHIP	2.2K	5%	1/2W
R552	1-216-057-61	RES-CHIP	2.2K	5%	1/10W
R553	1-215-453-00	METAL	22K	1%	1/4W
R554	1-215-457-00	METAL	33K	1%	1/4W
R556	1-215-437-00	METAL	4.7K	1%	1/4W
R558	1-220-963-91	METAL MELF	3.3K	5%	1/2W
R559	1-220-969-91	METAL CHIP	10K	5%	1/2W
R560	1-216-073-61	RES-CHIP	10G	5%	1/10W
R562	1-249-401-11	CARBON	47	5%	1/4W
R565	1-216-073-61	RES-CHIP	10G	5%	1/10W
R567	1-216-105-61	METAL CHIP	220K	5%	1/10W
R568	1-249-383-11	CARBON	1.5	5%	1/4W
R570	1-216-069-61	RES-CHIP	6.8K	5%	1/10W
R571	1-215-443-00	METAL	8.2K	1%	1/4W
R573	1-216-089-61	RES, CHIP 47K		(2012)	
R577	1-215-913-11	METAL OXIDE	220	5%	3W
R578	1-216-369-00	METAL OXIDE	1	5%	2W
R579	1-216-097-61	RES-CHIP	100K	5%	1/10W
R580	1-208-830-11	METAL CHIP	100K	0.5%	1/10W
R581	1-208-798-11	METAL CHIP	4.7K	0.5%	1/10W
R582	1-216-113-61	RES-CHIP	470K	5%	1/10W
R584	1-216-081-61	RES-CHIP	22K	5%	1/10W
R587	1-216-097-61	RES-CHIP	100K	5%	1/10W
R588	1-215-888-00	METAL OXIDE	220	5%	2W
R589	1-215-888-00	METAL OXIDE	220	5%	2W
R590	1-215-465-00	METAL	68K	1%	1/4W
R591	1-260-288-11	CARBON	0.47	5%	1/2W
R593	1-260-288-11	CARBON	0.47	5%	1/2W
R594	1-260-288-11	CARBON	0.47	5%	1/2W
R596	1-215-917-11	METAL OXIDE	1K	5%	3W
R597	1-247-750-11	CARBON	680	5%	1/2W
R598	1-220-976-91	METAL MELF	56K	5%	1/2W
R599	1-249-389-11	CARBON	4.7	5%	1/4W
R600	1-220-976-91	METAL MELF	56K	5%	1/2W
R601	1-249-420-11	CARBON	1.8K	5%	1/4W
R602	1-249-389-11	CARBON	4.7	5%	1/4W
R603	1-215-485-00	METAL	470K	1%	1/4W
R604	1-216-097-61	RES-CHIP	100K	5%	1/10W
R607	1-220-965-91	METAL CHIP	4.7K	5%	1/2W
R608	1-240-205-91	CARBON	22M	5%	1/2W
R609	1-216-057-61	RES-CHIP	2.2K	5%	1/10W
R610	1-216-073-61	RES-CHIP	10G	5%	1/10W
R611	1-216-089-61	RES-CHIP	47K		(2012)
R612	1-216-045-00	METAL CHIP	680	5%	1/10W
R614	1-216-041-61	RES-CHIP	470	5%	1/10W
R615	1-216-369-00	METAL OXIDE	1	5%	2W
R616	1-260-302-51	CARBON	6.8	5%	1/2W
R617	1-247-791-91	CARBON	22	5%	1/4W
R619	1-260-128-11	CARBON	270K	5%	1/2W
R621	1-215-864-00	METAL OXIDE	150	5%	1W
R623	1-216-095-61	RES-CHIP	82K	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R624	1-216-089-61	RES-CHIP	47K		(2012)
R626	1-216-049-61	RES-CHIP	1K	5%	1/10W
R627	1-240-251-11	CMT-MELF	6.8	5%	10W
R629	1-247-747-11	CARBON	470	5%	1/2W
R630	1-249-429-11	CARBON	10K	5%	1/4W
R631	1-216-089-61	RES, CHIP 47K		(2012)	
R632	1-202-933-61	FUSIBLE	0.1	10%	1/2W
R634 ⚠	1-218-265-11	METAL	8.2M	5%	1W
R635	1-216-492-11	METAL OXIDE	82K	5%	3W
R636	1-215-924-00	METAL OXIDE	15K	5%	3W
R637	1-216-492-11	METAL OXIDE	82K	5%	3W
R639	1-216-361-21	METAL OXIDE	0.22	5%	2W
R640	1-220-956-91	METAL MELF	680	5%	1/2W
R641	1-216-361-21	METAL OXIDE	0.22	5%	2W
R642	1-220-959-91	METAL MELF	1.5K	5%	1/2W
R643	1-220-963-91	METAL MELF	3.3K	5%	1/2W
R644	1-220-959-91	METAL MELF	1.5K	5%	1/2W
R646	1-215-924-00	METAL OXIDE	15K	5%	3W
R647	1-249-387-11	CARBON	3.3	5%	1/4W
R648	1-216-057-61	RES-CHIP	2.2K	5%	1/10W
R649	1-220-958-91	RES, METAL FILM 1K			
R650	1-215-882-00	METAL OXIDE	22	5%	2W
R652	1-215-900-11	METAL OXIDE	22K	5%	2W
R653	1-215-873-00	METAL OXIDE	4.7K	5%	1W
R654	1-216-369-00	METAL OXIDE	1	5%	2W
R656	1-220-958-91	RES, METAL FILM 1K			
R657	1-260-127-11	CARBON	220K	5%	1/2W
R659	1-216-049-61	RES-CHIP	1K	5%	1/10W
R660	1-216-073-61	RES-CHIP	10G	5%	1/10W
R661	1-215-873-00	METAL OXIDE	4.7K	5%	1W
R909	1-216-065-61	RES-CHIP	4.7K	5%	1/10W
R910	1-216-065-61	RES-CHIP	4.7K	5%	1/10W
		<RELAY>			
RY600 ⚠	1-755-214-11	RELAY, AC POWER			
RY601 ⚠	1-755-214-11	RELAY, AC POWER			
		<SWITCH>			
S501	1-572-707-11	SWITCH, LEVER			
S502	1-572-707-11	SWITCH, LEVER			
		<TRANSFORMER>			
T501	1-437-195-11	TRANSFORMER, HORIZONTAL DRIVE			
T503 ⚠	1-453-284-11	TRANSFORMER ASSY FLYBACK (NX-4009//M3I4)			
T504	1-431-475-11	TRANSFORMER, HORIZONTAL LINEAR			
T505	1-426-981-11	TRANSFORMER, FERRITE (PMT)			
T601	1-424-505-11	TRANSFORMER, LINE FILTER			
T603 ⚠	1-431-946-11	TRANSFORMER, CONVERTER			
T604 ⚠	1-431-852-11	TRANSFORMER, CONVERTER (SRT)			
		<THERMISTOR>			
THP600	1-809-827-11	THERMISTOR, POSITIVE			

A B2 B3

REF.NO.	PART NO.	DESCRIPTION			REMARK
		<TUNER>			
TU101	8-598-449-10	TUNER, FSS BTF-LG433			
		<CRYSTAL>			
X001	1-781-174-21	VIBRATOR, CERAMIC			
X301	1-781-134-21	VIBRATOR, CRYSTAL			
X302	1-781-132-21	VIBRATOR, CRYSTAL			
**********					
*	A-1131-417-A	B2 BOARD MOUNTED			
		**********			
		<CONNECTOR>			
CN2302	* 1-766-952-11	CONNECTOR, BOARD TO BOARD 11P			
**********					
*	A-1136-131-A	B3 BOARD COMPLETE			
		**********			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		<CAPACITOR>			
C1402	1-104-664-11	ELECT	47UF	20.00%	25V
C1404	1-216-295-61	SHORT CHIP	0		
C1405	1-104-664-11	ELECT	47UF	20.00%	25V
C1410	1-104-664-11	ELECT	47UF	20.00%	25V
C1411	1-216-295-61	SHORT CHIP	0		
C1413	1-126-935-11	ELECT	470UF	20.00%	16V
C1414	1-164-346-51	CERAMIC CHIP	1UF	10%	16V
C1415	1-104-664-11	ELECT	47UF	20.00%	25V
C1416	1-164-346-51	CERAMIC CHIP	1UF	10%	16V
C1418	1-163-031-11	CERAMIC CHIP	0.01UF		50V
C1422	1-164-346-51	CERAMIC CHIP	1UF	10%	16V
C1423	1-164-346-51	CERAMIC CHIP	1UF	10%	16V
C1425	1-164-346-51	CERAMIC CHIP	1UF	10%	16V
C1426	1-164-346-51	CERAMIC CHIP	1UF	10%	16V
C1428	1-104-665-11	ELECT	100UF	20.00%	25V
C1429	1-104-663-11	ELECT	33UF	20.00%	25V
C1431	1-163-038-00	CERAMIC CHIP	0.1UF		25V
C1433	1-104-664-11	ELECT	47UF	20.00%	16V
C1434	1-163-133-00	CERAMIC CHIP	470PF	10%	50V
C1435	1-163-038-00	CERAMIC CHIP	0.1UF		25V
C1436	1-163-038-00	CERAMIC CHIP	0.1UF		25V
C1440	1-163-133-00	CERAMIC CHIP	470PF	10%	50V
C1441	1-163-133-00	CERAMIC CHIP	470PF	10%	50V
C1443	1-163-133-00	CERAMIC CHIP	470PF	10%	50V
C1444	1-164-005-51	CERAMIC CHIP	470000PF	10%	25V
C1445	1-163-133-00	CERAMIC CHIP	470PF	10%	50V
C1446	1-163-133-00	CERAMIC CHIP	470PF	10%	50V
C1447	1-125-797-91	ELECT	10UF	20.00%	50V
C1448	1-164-005-51	CERAMIC CHIP	470000PF	10%	25V
C1449	1-126-933-11	ELECT	100UF	20.00%	16V
C1459	1-163-133-00	CERAMIC CHIP	470PF	10%	50V
C1460	1-163-133-00	CERAMIC CHIP	470PF	10%	50V
C1461	1-164-346-51	CERAMIC CHIP	1UF	10%	16V
C1462	1-164-346-51	CERAMIC CHIP	1UF	10%	16V
C3201	1-125-797-91	ELECT	10UF	20.00%	50V
C3202	1-136-169-00	MYLAR	0.22UF	5.00%	50V
C3203	1-115-339-51	CERAMIC CHIP	0.1UF	10.00%	50V
C3206	1-164-232-11	CERAMIC CHIP	0.01UF	10.00%	50V
C3207	1-164-489-51	CERAMIC CHIP	0.22UF	10.00%	16V
C3208	1-164-489-51	CERAMIC CHIP	0.22UF	10.00%	16V
C3209	1-163-017-00	CERAMIC CHIP	0.0047UF	10.00%	50V
C3210	1-125-797-91	ELECT	10UF	20.00%	50V
C3211	1-125-797-91	ELECT	10UF	20.00%	50V
C3212	1-125-797-91	ELECT	10UF	20.00%	50V
C3213	1-104-664-11	ELECT	47UF	20.00%	25V
C3214	1-104-664-11	ELECT	47UF	20.00%	25V
C3215	1-117-720-51	CERAMIC CHIP	4.7UF		10V
C3216	1-117-720-51	CERAMIC CHIP	4.7UF		10V
C3217	1-164-232-11	CERAMIC CHIP	0.01UF	10.00%	50V
C3218	1-163-017-00	CERAMIC CHIP	0.0047UF	10.00%	50V
C3219	1-163-017-00	CERAMIC CHIP	0.0047UF	10.00%	50V
C3220	1-163-037-11	CERAMIC CHIP	0.022UF	10.00%	50V
C3221	1-163-037-11	CERAMIC CHIP	0.022UF	10.00%	50V
C3222	1-163-037-11	CERAMIC CHIP	0.022UF	10.00%	50V
C3223	1-163-037-11	CERAMIC CHIP	0.022UF	10.00%	50V
C3224	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C3225	1-163-038-00	CERAMIC CHIP	0.1UF		25V
C3226	1-125-797-91	ELECT	10UF	20.00%	50V
C3227	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C3228	1-107-698-11	ELECT	10UF	20.00%	25V
C3229	1-107-698-11	ELECT	10UF	20.00%	25V
C3238	1-164-005-51	CERAMIC CHIP	470000PF	10%	25V
C3239	1-136-169-00	MYLAR	0.22UF	5.00%	50V
C3240	1-115-339-51	CERAMIC CHIP	0.1UF	10.00%	50V
C3243	1-163-989-51	CERAMIC CHIP	0.033UF	10.00%	25V
C3244	1-164-346-51	CERAMIC CHIP	1UF	10%	16V
C3245	1-164-005-51	CERAMIC CHIP	470000PF	10%	25V
C3246	1-163-243-11	CERAMIC CHIP	47PF	5.00%	50V
C3247	1-126-963-11	ELECT	4.7UF	20.00%	50V
C3248	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C3249	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C3250	1-164-346-51	CERAMIC CHIP	1UF	10%	16V
C3251	1-125-797-91	ELECT	10UF	20.00%	50V
C3252	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C3253	1-126-933-11	ELECT	100UF	20.00%	16V
C3254	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C3255	1-163-243-11	CERAMIC CHIP	47PF	5.00%	50V
C3256	1-126-963-11	ELECT	4.7UF	20.00%	50V
C3257	1-164-346-51	CERAMIC CHIP	1UF	10%	16V
C3258	1-163-989-51	CERAMIC CHIP	0.033UF	10.00%	25V
C3259	1-126-963-11	ELECT	4.7UF	20.00%	50V
C3260	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C3262	1-104-664-11	ELECT	47UF	20.00%	16V
C3264	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C3265	1-125-797-91	ELECT	10UF	20.00%	50V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C3266	1-125-797-91	ELECT	10UF	20.00%	50V
C3268	1-164-004-51	CERAMIC CHIP	0.1UF	10.00%	25V
C3269	1-164-004-51	CERAMIC CHIP	0.1UF	10.00%	25V
C3270	1-164-690-51	CERAMIC CHIP	0.0022UF	5.00%	50V
C3271	1-164-690-51	CERAMIC CHIP	0.0022UF	5.00%	50V
C3272	1-126-965-11	ELECT	22UF	20.00%	50V
C3273	1-115-339-51	CERAMIC CHIP	0.1UF	10.00%	50V
C3274	1-125-797-91	ELECT	10UF	20.00%	50V
C3276	1-164-004-51	CERAMIC CHIP	0.1UF	10.00%	25V
C3277	1-164-004-51	CERAMIC CHIP	0.1UF	10.00%	25V
C3278	1-164-004-51	CERAMIC CHIP	0.1UF	10.00%	25V
C3279	1-164-004-51	CERAMIC CHIP	0.1UF	10.00%	25V
C3280	1-115-419-11	CERAMIC CHIP	3300PF	5.00%	25V
C3281	1-163-037-11	CERAMIC CHIP	0.022UF	10.00%	50V
C3282	1-125-797-91	ELECT	10UF	20.00%	50V
C3283	1-125-797-91	ELECT	10UF	20.00%	50V
C3284	1-115-339-51	CERAMIC CHIP	0.1UF	10.00%	50V
C3285	1-125-797-91	ELECT	10UF	20.00%	50V
C3286	1-125-797-91	ELECT	10UF	20.00%	50V
C3287	1-125-797-91	ELECT	10UF	20.00%	50V
C3288	1-163-037-11	CERAMIC CHIP	0.022UF	10.00%	50V
C3289	1-115-419-11	CERAMIC CHIP	3300PF	5.00%	25V
C3290	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C3291	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C6200	1-216-295-61	SHORT CHIP	0		
C6202	1-126-953-11	ELECT	2200UF	20.00%	35V
C6203	1-164-232-11	CERAMIC CHIP	0.01UF	10.00%	50V
C6204	1-128-550-11	ELECT	2200UF	20.00%	50V
C6205	1-130-495-00	MYLAR	0.1UF	5.00%	50V
C6206	1-128-550-11	ELECT	2200UF	20.00%	50V
C6209	1-130-495-00	MYLAR	0.1UF	5.00%	50V
C6210	1-126-924-11	ELECT	330UF	20.00%	10V
C6211	1-126-924-11	ELECT	330UF	20.00%	10V
C6212	1-104-664-11	ELECT	47UF	20.00%	25V
C6213	1-125-797-91	ELECT	10UF	20.00%	50V
C6217	1-164-004-51	CERAMIC CHIP	0.1UF	10.00%	25V
C6220	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C6222	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C6223	1-125-799-91	ELECT	1UF	20.00%	63V
C6241	1-125-797-91	ELECT	10UF	20.00%	50V
C6244	1-164-161-11	CERAMIC CHIP	0.0022UF	10.00%	50V
C6245	1-164-161-11	CERAMIC CHIP	0.0022UF	10.00%	50V
C6249	1-216-295-61	SHORT CHIP	0		
		<CONNECTOR>			
CN1400 *	1-564-512-11	PLUG, CONNECTOR 9P			
CN1401 *	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P			
CN1403 *	1-564-506-11	PLUG, CONNECTOR 3P			
CN1405 *	1-779-892-11	CONNECTOR, BOARD TO BOARD 10P			
CN1407 *	1-779-891-11	CONNECTOR, BOARD TO BOARD 8P			
CN6200 *	1-564-507-11	PLUG, CONNECTOR 4P			
CN6204 *	1-564-509-11	PLUG, CONNECTOR 6P			
CN6206 *	1-564-508-11	PLUG, CONNECTOR 5P			

REF.NO.	PART NO.	DESCRIPTION	REMARK
		<DIODE>	
D1401	8-719-069-60	DIODE UDZS-TE17-9.1B	
D1402	8-719-069-60	DIODE UDZS-TE17-9.1B	
D1403	8-719-069-60	DIODE UDZS-TE17-9.1B	
D1404	8-719-069-60	DIODE UDZS-TE17-9.1B	
D1405	8-719-069-60	DIODE UDZS-TE17-9.1B	
D1406	8-719-069-60	DIODE UDZS-TE17-9.1B	
D1407	8-719-069-60	DIODE UDZS-TE17-9.1B	
D1408	8-719-069-60	DIODE UDZS-TE17-9.1B	
D1409	8-719-069-60	DIODE UDZS-TE17-9.1B	
D1410	8-719-069-60	DIODE UDZS-TE17-9.1B	
D1411	8-719-069-60	DIODE UDZS-TE17-9.1B	
D1412	8-719-069-60	DIODE UDZS-TE17-9.1B	
D1415	8-719-069-60	DIODE UDZS-TE17-9.1B	
D1416	8-719-069-60	DIODE UDZS-TE17-9.1B	
D3201	8-719-988-61	DIODE 1SS355TE-17	
D3203	8-719-988-61	DIODE 1SS355TE-17	
D6211	8-719-404-50	DIODE MA111-TX	
D6212	8-719-404-50	DIODE MA111-TX	
		<IC>	
IC1401	8-752-068-46	IC CXA1855S	
IC1404	8-759-701-59	IC L7809CV	
IC3200	8-759-103-37	IC UPC4558G2-T2	
IC3201	8-759-553-44	IC NJM2187L	
IC3202	8-759-100-96	IC UPC4558G2-T2	
IC3203	8-759-711-10	IC NJU4066BM-T2	
IC3204	8-759-100-96	IC NJM4558M-TE2	
IC3205	8-752-057-18	IC CXA1315P	
IC3206	8-759-496-02	IC NJM2150D	
IC3207	8-759-273-12	IC TDA7315D013TR	
IC6200	8-759-168-24	IC TA8200AH	
		<JACK>	
J1401	1-784-646-11	TERMINAL, S	
J1402	1-778-388-11	JACK BLOCK, PIN 9P	
		<CHIP CONDUCTOR>	
JR1405	1-216-295-61	SHORT CHIP 0	
JR1406	1-216-295-61	SHORT CHIP 0	
JR1407	1-216-295-61	SHORT CHIP 0	
JR1408	1-216-295-61	SHORT CHIP 0	
JR3200	1-216-295-61	SHORT CHIP 0	
JR3201	1-216-295-61	SHORT CHIP 0	
JR3202	1-216-295-61	SHORT CHIP 0	
JR3203	1-216-295-61	SHORT CHIP 0	
JR3204	1-216-295-61	SHORT CHIP 0	
JR3207	1-216-295-61	SHORT CHIP 0	
JR3208	1-216-295-61	SHORT CHIP 0	
JR3209	1-216-295-61	SHORT CHIP 0	
JR6200	1-216-295-61	SHORT CHIP 0	
JR6202	1-216-295-61	SHORT CHIP 0	
JR6203	1-216-295-61	SHORT CHIP 0	

B3

REF.NO.	PART NO.	DESCRIPTION			REMARK
JR6204	1-216-295-61	SHORT CHIP	0		
		<COIL>			
L1404	1-412-537-31	INDUCTOR	100UH		
L3202	1-414-856-11	INDUCTOR	10UH		
		<TRANSISTOR>			
Q1402	8-729-230-47	TRANSISTOR 2SA1162-YG-TE85L			
Q1403	8-729-230-50	TRANSISTOR 2SC2712-YG-TE85L			
Q1404	8-729-230-50	TRANSISTOR 2SC2712-YG-TE85L			
Q3201	8-729-224-62	TRANSISTOR 2SK246GR-TPE2			
Q3202	8-729-230-50	TRANSISTOR 2SC2712-YG-TE85L			
Q3203	8-729-230-50	TRANSISTOR 2SC2712-YG-TE85L			
Q3204	8-729-224-62	TRANSISTOR 2SK246GR-TPE2			
Q6201	8-729-421-17	TRANSISTOR UN2213-TX			
Q6203	8-729-421-17	TRANSISTOR UN2213-TX			
Q6204	8-729-421-17	TRANSISTOR UN2213-TX			
Q6208	8-729-421-17	TRANSISTOR UN2213-TX			
		<RESISTOR>			
R1403	1-216-033-61	RES-CHIP	220	5%	1/10W
R1404	1-216-295-61	SHORT CHIP	0		
R1406	1-216-017-61	RES-CHIP	47	5%	1/10W
R1407	1-216-033-61	RES-CHIP	220	5%	1/10W
R1408	1-216-031-61	RES-CHIP	180	5%	1/10W
R1409	1-216-105-61	METAL CHIP	220K	5%	1/10W
R1410	1-216-105-61	METAL CHIP	220K	5%	1/10W
R1411	1-216-295-61	SHORT CHIP	0		
R1412	1-216-295-61	SHORT CHIP	0		
R1414	1-216-025-61	RES-CHIP	100	5%	1/10W
R1417	1-216-025-61	RES-CHIP	100	5%	1/10W
R1418	1-216-025-61	RES-CHIP	100	5%	1/10W
R1426	1-216-025-61	RES-CHIP	100	5%	1/10W
R1428	1-216-025-61	RES-CHIP	100	5%	1/10W
R1429	1-216-295-61	SHORT CHIP	0		
R1430	1-216-025-61	RES-CHIP	100	5%	1/10W
R1403	1-216-033-61	RES-CHIP	220	5%	1/10W
R1404	1-216-295-61	SHORT CHIP	0		
R1406	1-216-017-61	RES-CHIP	47	5%	1/10W
R1407	1-216-033-61	RES-CHIP	220	5%	1/10W
R1408	1-216-031-61	RES-CHIP	180	5%	1/10W
R1409	1-216-105-61	METAL CHIP	220K	5%	1/10W
R1410	1-216-105-61	METAL CHIP	220K	5%	1/10W
R1411	1-216-295-61	SHORT CHIP	0		
R1412	1-216-295-61	SHORT CHIP	0		
R1414	1-216-025-61	RES-CHIP	100	5%	1/10W
R1417	1-216-025-61	RES-CHIP	100	5%	1/10W
R1418	1-216-025-61	RES-CHIP	100	5%	1/10W
R1426	1-216-025-61	RES-CHIP	100	5%	1/10W
R1428	1-216-025-61	RES-CHIP	100	5%	1/10W
R1429	1-216-295-61	SHORT CHIP	0		
R1430	1-216-025-61	RES-CHIP	100	5%	1/10W
R1431	1-216-025-61	RES-CHIP	100	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R1433	1-216-025-61	RES-CHIP	100	5%	1/10W
R1435	1-216-022-00	METAL CHIP	75	5%	1/10W
R1436	1-216-025-61	RES-CHIP	100	5%	1/10W
R1437	1-216-022-00	METAL CHIP	75	5%	1/10W
R1438	1-216-025-61	RES-CHIP	100	5%	1/10W
R1441	1-216-025-61	RES-CHIP	100	5%	1/10W
R1442	1-216-049-61	RES-CHIP	1K	5%	1/10W
R1443	1-216-049-61	RES-CHIP	1K	5%	1/10W
R1445	1-216-025-61	RES-CHIP	100	5%	1/10W
R1446	1-216-105-61	METAL CHIP	220K	5%	1/10W
R1447	1-216-025-61	RES-CHIP	100	5%	1/10W
R1449	1-216-073-61	RES-CHIP	10G	5%	1/10W
R1450	1-216-073-61	RES-CHIP	10G	5%	1/10W
R1451	1-216-073-61	RES-CHIP	10G	5%	1/10W
R1452	1-216-295-61	SHORT CHIP	0		
R1453	1-216-025-61	RES-CHIP	100	5%	1/10W
R1455	1-216-073-61	RES-CHIP	10G	5%	1/10W
R1456	1-216-113-61	RES-CHIP	470K	5%	1/10W
R1457	1-216-073-61	RES-CHIP	10G	5%	1/10W
R1458	1-216-073-61	RES-CHIP	10G	5%	1/10W
R1459	1-216-025-61	RES-CHIP	100	5%	1/10W
R1460	1-216-033-61	RES-CHIP	220	5%	1/10W
R1461	1-216-025-61	RES-CHIP	100	5%	1/10W
R1463	1-216-073-61	RES-CHIP	10G	5%	1/10W
R1464	1-216-113-61	RES-CHIP	470K	5%	1/10W
R1465	1-216-113-61	RES-CHIP	470K	5%	1/10W
R1466	1-216-033-61	RES-CHIP	220	5%	1/10W
R1467	1-216-057-61	RES-CHIP	2.2K	5%	1/10W
R1468	1-216-093-11	METAL CHIP	68K	5%	1/10W
R1469	1-216-105-61	METAL CHIP	220K	5%	1/10W
R1470	1-216-105-61	METAL CHIP	220K	5%	1/10W
R1471	1-216-022-00	METAL CHIP	75	5%	1/10W
R1472	1-216-033-61	RES-CHIP	220	5%	1/10W
R1473	1-216-033-61	RES-CHIP	220	5%	1/10W
R1477	1-216-047-00	METAL CHIP	820	5%	1/10W
R1478	1-216-051-61	RES-CHIP	1.2K	5%	1/10W
R1479	1-216-105-61	METAL CHIP	220K	5%	1/10W
R1480	1-216-105-61	METAL CHIP	220K	5%	1/10W
R1481	1-216-022-00	METAL CHIP	75	5%	1/10W
R1482	1-216-025-61	RES-CHIP	100	5%	1/10W
R1483	1-216-025-61	RES-CHIP	100	5%	1/10W
R1484	1-216-025-61	RES-CHIP	100	5%	1/10W
R1485	1-216-025-61	RES-CHIP	100	5%	1/10W
R1486	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R1490	1-216-025-61	RES-CHIP	100	5%	1/10W
R1491	1-216-025-61	RES-CHIP	100	5%	1/10W
R1492	1-216-021-61	RES-CHIP	68	5%	1/10W
R1493	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R1496	1-216-041-61	RES-CHIP	470	5%	1/10W
R1497	1-216-041-61	RES-CHIP	470	5%	1/10W
R1498	1-216-025-61	RES-CHIP	100	5%	1/10W
R1499	1-216-025-61	RES-CHIP	100	5%	1/10W
R1500	1-216-025-61	RES-CHIP	100	5%	1/10W
R3200	1-216-121-61	RES-CHIP	1M	5%	1/10W
R3201	1-216-121-61	RES-CHIP	1M	5%	1/10W
R3202	1-216-097-61	RES-CHIP	100K	5%	1/10W
R3203	1-216-121-61	RES-CHIP	1M	5%	1/10W

B3

REF.NO.	PART NO.	DESCRIPTION			REMARK
R3204	1-216-061-61	RES-CHIP	3.3G	5%	1/10W
R3205	1-216-069-61	RES-CHIP	6.8K	5%	1/10W
R3206	1-216-039-61	RES-CHIP	390	5%	1/10W
R3207	1-216-073-61	RES-CHIP	10G	5%	1/10W
R3208	1-216-053-61	RES-CHIP	1.5K	5%	1/10W
R3209	1-216-069-61	RES-CHIP	6.8K	5%	1/10W
R3210	1-216-053-61	RES-CHIP	1.5K	5%	1/10W
R3211	1-216-069-61	RES-CHIP	6.8K	5%	1/10W
R3212	1-216-049-61	RES-CHIP	1K	5%	1/10W
R3213	1-216-091-61	RES-CHIP	56K	5%	1/10W
R3214	1-216-295-61	SHORT CHIP	0		
R3215	1-216-295-61	SHORT CHIP	0		
R3216	1-216-073-61	RES-CHIP	10G	5%	1/10W
R3217	1-216-073-61	RES-CHIP	10G	5%	1/10W
R3218	1-216-065-61	RES-CHIP	4.7K	5%	1/10W
R3219	1-216-077-61	RES, CHIP	15K		(2012)
R3220	1-216-097-61	RES-CHIP	100K	5%	1/10W
R3221	1-216-073-61	RES-CHIP	10G	5%	1/10W
R3222	1-216-073-61	RES-CHIP	10G	5%	1/10W
R3223	1-216-065-61	RES-CHIP	4.7K	5%	1/10W
R3224	1-216-115-00	METAL CHIP	560K	5%	1/10W
R3225	1-216-073-61	RES-CHIP	10G	5%	1/10W
R3226	1-216-073-61	RES-CHIP	10G	5%	1/10W
R3227	1-216-129-61	METAL CHIP	2.2M	5%	1/10W
R3228	1-216-085-00	METAL CHIP	33K	5%	1/10W
R3229	1-216-095-61	RES-CHIP	82K	5%	1/10W
R3230	1-216-055-61	RES-CHIP	1.8K	5%	1/10W
R3231	1-216-091-61	RES-CHIP	56K	5%	1/10W
R3232	1-216-089-61	RES, CHIP	47K		(2012)
R3233	1-216-069-61	RES-CHIP	6.8K	5%	1/10W
R3234	1-216-039-61	RES-CHIP	390	5%	1/10W
R3235	1-216-101-61	RES-CHIP	150K	5%	1/10W
R3236	1-216-113-61	RES-CHIP	470K	5%	1/10W
R3237	1-216-065-61	RES-CHIP	4.7K	5%	1/10W
R3238	1-216-073-61	RES-CHIP	10G	5%	1/10W
R3239	1-216-073-61	RES-CHIP	10G	5%	1/10W
R3240	1-216-081-61	RES-CHIP	22K	5%	1/10W
R3241	1-216-093-11	METAL CHIP	68K	5%	1/10W
R3242	1-216-081-61	RES-CHIP	22K	5%	1/10W
R3243	1-216-073-61	RES-CHIP	10G	5%	1/10W
R3244	1-216-073-61	RES-CHIP	10G	5%	1/10W
R3245	1-216-097-61	RES-CHIP	100K	5%	1/10W
R3246	1-216-065-61	RES-CHIP	4.7K	5%	1/10W
R3247	1-216-101-61	RES-CHIP	150K	5%	1/10W
R3248	1-216-081-61	RES-CHIP	22K	5%	1/10W
R3249	1-216-073-61	RES-CHIP	10G	5%	1/10W
R3250	1-216-049-61	RES-CHIP	1K	5%	1/10W
R3251	1-216-101-61	RES-CHIP	150K	5%	1/10W
R3252	1-216-113-61	RES-CHIP	470K	5%	1/10W
R3253	1-216-065-61	RES-CHIP	4.7K	5%	1/10W
R3254	1-216-073-61	RES-CHIP	10G	5%	1/10W
R3255	1-216-121-61	RES-CHIP	1M	5%	1/10W
R3256	1-216-121-61	RES-CHIP	1M	5%	1/10W
R3257	1-216-097-61	RES-CHIP	100K	5%	1/10W
R3258	1-216-121-61	RES-CHIP	1M	5%	1/10W
R3259	1-216-061-61	RES-CHIP	3.3G	5%	1/10W
R3260	1-216-025-61	RES-CHIP	100	5%	1/10W
R3261	1-216-025-61	RES-CHIP	100	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R3262	1-216-115-00	METAL CHIP	560K	5%	1/10W
R3263	1-216-093-11	METAL CHIP	68K	5%	1/10W
R3264	1-216-053-61	RES-CHIP	1.5K	5%	1/10W
R3266	1-216-295-61	SHORT CHIP	0		
R3267	1-216-049-61	RES-CHIP	1K	5%	1/10W
R3268	1-216-049-61	RES-CHIP	1K	5%	1/10W
R3269	1-216-057-61	RES-CHIP	2.2K	5%	1/10W
R3270	1-216-295-61	SHORT CHIP	0		
R3271	1-216-069-61	RES-CHIP	6.8K	5%	1/10W
R3272	1-216-069-61	RES-CHIP	6.8K	5%	1/10W
R3273	1-216-057-61	RES-CHIP	2.2K	5%	1/10W
R3274	1-216-069-61	RES-CHIP	6.8K	5%	1/10W
R3277	1-216-073-61	RES-CHIP	10G	5%	1/10W
R3278	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R3279	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R3280	1-216-033-61	RES-CHIP	220	5%	1/10W
R3281	1-216-033-61	RES-CHIP	220	5%	1/10W
R3282	1-216-079-00	METAL CHIP	18K	5%	1/10W
R3283	1-216-081-61	RES-CHIP	22K	5%	1/10W
R3284	1-216-073-61	RES-CHIP	10G	5%	1/10W
R3285	1-216-073-61	RES-CHIP	10G	5%	1/10W
R3286	1-216-073-61	RES-CHIP	10G	5%	1/10W
R3287	1-216-073-61	RES-CHIP	10G	5%	1/10W
R3288	1-216-073-61	RES-CHIP	10G	5%	1/10W
R3289	1-216-073-61	RES-CHIP	10G	5%	1/10W
R3290	1-216-081-61	RES-CHIP	22K	5%	1/10W
R3291	1-216-079-00	METAL CHIP	18K	5%	1/10W
R3294	1-216-073-61	RES-CHIP	10G	5%	1/10W
R3295	1-216-065-61	RES-CHIP	4.7K	5%	1/10W
R3296	1-216-065-61	RES-CHIP	4.7K	5%	1/10W
R3297	1-216-069-61	RES-CHIP	6.8K	5%	1/10W
R3298	1-216-069-61	RES-CHIP	6.8K	5%	1/10W
R3299	1-216-069-61	RES-CHIP	6.8K	5%	1/10W
R6201	1-216-065-61	RES-CHIP	4.7K	5%	1/10W
R6202	1-216-065-61	RES-CHIP	4.7K	5%	1/10W
R6203	1-216-295-61	SHORT CHIP	0		
R6209	1-216-049-61	RES-CHIP	1K	5%	1/10W
R6213	1-216-073-61	RES-CHIP	10G	5%	1/10W
R6214	1-216-073-61	RES-CHIP	10G	5%	1/10W
R6219	1-216-089-61	RES, CHIP	47K		(2012)
R6245	1-216-053-61	RES-CHIP	1.5K	5%	1/10W
R6246	1-216-053-61	RES-CHIP	1.5K	5%	1/10W
R6254	1-216-013-61	METAL CHIP	33	5%	1/10W
R6255	1-216-308-61	METAL CHIP	4.7	5%	1/10W
R6258	1-216-013-61	METAL CHIP	33	5%	1/10W
R6259	1-216-308-61	METAL CHIP	4.7	5%	1/10W
R6278	1-216-295-61	SHORT CHIP	0		

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C

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

REF.NO.		PART NO.	DESCRIPTION			REMARK
	*	A-1331-911-A	C BOARD MOUNTED **********			
		4-382-854-11	SCREW (M3X10), P, SW (+)			
			<CAPACITOR>			
C700		1-110-389-11	FILM MELF	0.1UF	5% 250V	
C701		1-162-114-00	CERAMIC	0.0047UF	2KV	
C702		1-102-074-00	CERAMIC	0.001UF	10.00% 50V	
C707		1-137-399-11	MYLAR	0.1UF	5.00% 50V	
C708		1-102-228-00	CERAMIC	470PF	10.00% 500V	
C709		1-102-228-00	CERAMIC	470PF	10.00% 500V	
C710		1-102-960-00	CERAMIC	24PF	5.00% 50V	
C711		1-102-852-91	CERAMIC	47PF	5.00% 50V	
C712		1-102-525-11	CERAMIC	68PF	5.00% 50V	
C713		1-102-228-00	CERAMIC	470PF	10.00% 500V	
C716		1-128-526-11	ELECT	100UF	20.00% 25V	
C717		1-107-651-11	ELECT	4.7UF	20.00% 250V	
C726		1-104-664-11	ELECT	47UF	20.00% 25V	
C1800		1-126-964-11	ELECT	10UF	20.00% 50V	
C1803		1-126-964-11	ELECT	10UF	20.00% 50V	
C1804		1-126-964-11	ELECT	10UF	20.00% 50V	
C1809		1-126-942-61	ELECT	1000UF	20.00% 25V	
			<CONNECTOR>			
CN700		1-695-915-11	TAB (CONTACT)			
CN701		1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P			
CN702		1-695-915-11	TAB (CONTACT)			
CN703	*	1-564-509-11	PLUG, CONNECTOR 6P			
CN704		1-695-915-11	TAB (CONTACT)			
CN706		1-695-915-11	TAB (CONTACT)			
CN1801	*	1-564-509-11	PLUG, CONNECTOR 6P			
CN1802	*	1-564-506-11	PLUG, CONNECTOR 3P			
			<DIODE>			
D702		8-719-921-20	DIODE 1SS119-25TD			
D703		8-719-921-20	DIODE 1SS119-25TD			
D704		8-719-921-20	DIODE 1SS119-25TD			
D705		8-719-051-85	DIODE HSS83TD			
D706		8-719-051-85	DIODE HSS83TD			
D707		8-719-051-85	DIODE HSS83TD			
D708		8-719-921-20	DIODE 1SS119-25TD			
D709		8-719-921-20	DIODE 1SS119-25TD			
D710		8-719-921-20	DIODE 1SS119-25TD			
D711		8-719-110-23	DIODE RD11ES-T1B3			
D720		8-719-921-20	DIODE 1SS119-25TD			
D721		8-719-921-20	DIODE 1SS119-25TD			
D722		8-719-921-20	DIODE 1SS119-25TD			
D1803		8-719-921-20	DIODE 1SS119-25TD			
D1804		8-719-921-20	DIODE 1SS119-25TD			
D1808		8-719-908-03	DIODE GP08DPKG23			

REF.NO.		PART NO.	DESCRIPTION			REMARK
			<IC>			
IC701		8-759-561-28	IC STV5112			
IC1800		8-759-822-38	IC LA6510			
			<JACK>			
J701	⚠	1-540-071-22	SOCKET, CRT			
			<COIL>			
L701		1-410-667-31	INDUCTOR	22UH		
L705		1-414-186-31	INDUCTOR	33UH		
L706		1-414-186-31	INDUCTOR	33UH		
L707		1-414-186-31	INDUCTOR	33UH		
			<TRANSISTOR>			
Q1800		8-729-139-98	TRANSISTOR 2SA1175TP-HFE			
Q1802		8-729-119-96	TRANSISTOR 2SC2785TP-HFE			
			<RESISTOR>			
R700		1-249-393-11	CARBON	10	5% 1/4W	
R701		1-249-496-11	CARBON	100K	5% 1/2W	
R702		1-215-469-00	METAL	100K	1% 1/4W	
R703		1-215-414-00	METAL	510	1% 1/4W	
R704		1-215-414-00	METAL	510	1% 1/4W	
R705		1-240-297-91	METAL MELF	1.2K	5% 1/2W	
R706		1-240-297-91	METAL MELF	1.2K	5% 1/2W	
R707		1-215-414-00	METAL	510	1% 1/4W	
R708		1-240-297-91	METAL MELF	1.2K	5% 1/2W	
R709		1-215-903-11	METAL OXIDE	68K	5% 2W	
R711		1-215-903-11	METAL OXIDE	68K	5% 2W	
R712		1-215-903-11	METAL OXIDE	68K	5% 2W	
R713		1-215-467-00	METAL	82K	1% 1/4W	
R714		1-220-965-91	METAL CHIP	4.7K	5% 1/2W	
R715		1-220-954-91	METAL MELF	470	5% 1/2W	
R716		1-220-954-91	METAL MELF	470	5% 1/2W	
R717		1-220-965-91	METAL CHIP	4.7K	5% 1/2W	
R718		1-247-752-11	CARBON	1K	5% 1/2W	
R719		1-220-965-91	METAL CHIP	4.7K	5% 1/2W	
R722		1-247-752-11	CARBON	1K	5% 1/2W	
R723		1-220-954-91	METAL MELF	470	5% 1/2W	
R724		1-247-752-11	CARBON	1K	5% 1/2W	
R730		1-216-392-11	METAL OXIDE	1.8	5% 3W	
R734		1-247-739-11	CARBON	100	5% 1/2W	
R744		1-215-415-00	METAL	560	1% 1/4W	
R745		1-215-410-00	METAL	360	1% 1/4W	
R1800		1-220-958-91	RES, METAL FILM	1K		
R1801		1-220-966-91	METAL CHIP	5.6K	5% 1/2W	
R1802		1-249-382-11	CARBON	1.2	5% 1/4W	
R1803		1-249-382-11	CARBON	1.2	5% 1/4W	
R1805		1-220-969-91	METAL CHIP	10K	5% 1/2W	
R1806		1-220-965-91	METAL CHIP	4.7K	5% 1/2W	
R1808		1-220-965-91	METAL CHIP	4.7K	5% 1/2W	
R1809		1-220-974-91	METAL CHIP	33K	5% 1/2W	
R1810		1-220-974-91	METAL CHIP	33K	5% 1/2W	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

C F H3

REF.NO.	PART NO.	DESCRIPTION			REMARK
R1811	1-249-440-11	CARBON	82K	5% 1/4W	
R1812	1-220-974-91	METAL CHIP	33K	5% 1/2W	
R1821	1-249-440-11	CARBON	82K	5% 1/4W	
R1822	1-220-974-91	METAL CHIP	33K	5% 1/2W	
R1823	1-220-966-91	METAL CHIP	5.6K	5% 1/2W	
R1824	1-220-974-91	METAL CHIP	33K	5% 1/2W	
R1825	1-220-963-91	METAL MELF	3.3K	5% 1/2W	
		<VARIABLE RESISTOR>			
RV702	1-241-656-11	RES, ADJ, METAL FILM 110M			
RV1801	1-223-241-11	RES, ADJ, CARBON 47K			
		<SPARK GAP>			
SG701	1-519-422-11	GAP, SPARK			
**********					
*	A-1241-361-A	F BOARD MOUNTED			
		**********			
	1-533-223-11	HOLDER, FUSE			
		<CAPACITOR>			
C654 ⚠	1-117-703-11	CERAMIC	0.0047UF	99% 250V	
C4601 ⚠	1-104-708-11	MYLAR	0.47UF	20.00% 250V	
C4602 ⚠	1-109-835-11	MYLAR	0.68UF	20.00% 250V	
		<CONNECTOR>			
CN4601 *	1-580-843-11	PIN, CONNECTOR (POWER)			
CN4602 *	1-580-843-11	PIN, CONNECTOR (POWER)			
CN4603	1-695-915-11	TAB (CONTACT)			
		<FUSE>			
F4601 ⚠	1-532-299-00	FUSE, TIME-LAG 5A/250V			
		<RESISTOR>			
R4601 ⚠	1-202-719-00	SOLID	1M	10% 1/2W	
		<TRANSFORMER>			
T4601	1-431-536-11	TRANSFORMER, LINE FILTER			
T4602	1-431-182-11	TRANSFORMER, LINE FILTER			
		<VARISTOR>			
VDR461	1-803-830-11	VARISTOR (ERZV14D621)			
**********					

REF.NO.	PART NO.	DESCRIPTION			REMARK
*	A-1372-866-A	H3 BOARD MOUNTED			
		**********			
*	4-055-304-01	HOLDER, LED			
		<CAPACITOR>			
C3900	1-136-153-00	MYLAR	0.01UF	5.00% 50V	
C3902	1-136-153-00	MYLAR	0.01UF	5.00% 50V	
C3904	1-104-664-11	ELECT	47UF	20.00% 25V	
C3905	1-125-805-91	ELECT	4.7UF	20.00% 50V	
C3906	1-125-805-91	ELECT	4.7UF	20.00% 50V	
C3910	1-104-664-11	ELECT	47UF	20.00% 16V	
C3911	1-104-664-11	ELECT	47UF	20.00% 16V	
C3912	1-102-114-00	CERAMIC	470PF	10.00% 50V	
C3913	1-125-799-91	ELECT	1UF	20.00% 63V	
C3914	1-126-965-11	ELECT	22UF	20.00% 50V	
		<CONNECTOR>			
CN3601 *	1-580-844-11	PIN, CONNECTOR (POWER)			
CN3602 *	1-580-844-11	PIN, CONNECTOR (POWER)			
CN3603	1-695-915-11	TAB (CONTACT)			
CN3901 *	1-564-507-11	PLUG, CONNECTOR 4P			
CN3902 *	1-564-509-11	PLUG, CONNECTOR 6P			
CN3904 *	1-564-512-11	PLUG, CONNECTOR 9P			
CN3905 *	1-564-512-11	PLUG, CONNECTOR 9P			
		<DIODE>			
D3900	8-719-070-16	DIODE NNCD9.1A-T1			
D3901	8-719-070-16	DIODE NNCD9.1A-T1			
D3902	8-719-070-16	DIODE NNCD9.1A-T1			
D3905	8-719-070-16	DIODE NNCD9.1A-T1			
D3906	8-719-045-19	DIODE SPB-26MVWF			
D3907	8-719-070-16	DIODE NNCD9.1A-T1			
D3908	8-719-070-16	DIODE NNCD9.1A-T1			
		<IC>			
IC3901	8-742-014-21	HYB IC SBX1981-51(21)			
		<JACK>			
J3901	1-750-264-11	JACK			
J3902	1-784-646-11	TERMINAL, S			
J3903	1-770-329-11	JACK, PIN 3P			
		<COIL>			
L3901	1-414-183-41	INDUCTOR	10UH		
L3902	1-414-183-41	INDUCTOR	10UH		
		<TRANSISTOR>			
Q3901	8-729-030-02	TRANSISTOR DTC144ESA-TP			
Q3902	8-729-030-02	TRANSISTOR DTC144ESA-TP			

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H3 VM1

REF.NO.	PART NO.	DESCRIPTION			REMARK
		<RESISTOR>			
R3900	1-220-952-91	METAL MELF	330	5%	1/2W
R3901	1-220-952-91	METAL MELF	330	5%	1/2W
R3902	1-247-804-11	CARBON	75	5%	1/4W
R3904	1-220-969-91	METAL CHIP	10K	5%	1/2W
R3905	1-220-969-91	METAL CHIP	10K	5%	1/2W
R3907	1-220-966-91	METAL CHIP	5.6K	5%	1/2W
R3908	1-220-954-91	METAL MELF	470	5%	1/2W
R3909	1-220-958-91	RES, METAL FILM	1K		
R3910	1-220-960-91	METAL MELF	1.8K	5%	1/2W
R3911	1-220-952-91	METAL MELF	330	5%	1/2W
R3912	1-220-963-91	METAL MELF	3.3K	5%	1/2W
R3913	1-220-969-91	METAL CHIP	10K	5%	1/2W
R3914	1-220-952-91	METAL MELF	330	5%	1/2W
R3915	1-220-969-91	METAL CHIP	10K	5%	1/2W
R3916	1-249-401-11	CARBON	47	5%	1/4W
R3917	1-247-804-11	CARBON	75	5%	1/4W
R3918	1-220-951-91	METAL	220	5%	1/2W
R3919	1-220-951-91	METAL	220	5%	1/2W
R3920	1-220-948-91	METAL	100	5%	1/2W
R3921	1-220-948-91	METAL	100	5%	1/2W
R3922	1-220-961-91	METAL CHIP	2.2K	5%	1/2W
R3923	1-220-951-91	METAL	220	5%	1/2W
R3924	1-247-804-11	CARBON	75	5%	1/4W
		<SWITCH>			
S3601 ⚠	1-571-433-21	SWITCH, PUSH (AC POWER)			
S3902	1-692-431-21	SWITCH, TACTILE			
S3903	1-692-431-21	SWITCH, TACTILE			
S3904	1-692-431-21	SWITCH, TACTILE			
S3905	1-692-431-21	SWITCH, TACTILE			
S3906	1-692-431-21	SWITCH, TACTILE			
S3907	1-692-431-21	SWITCH, TACTILE			
S3908	1-692-431-21	SWITCH, TACTILE			
**********					
*	A-1342-476-A	VM1 BOARD MOUNTED			
		**********			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		<CAPACITOR>			
C5902	1-104-661-91	ELECT	330UF	20.00%	16V
C5903	1-161-830-00	CERAMIC	0.0047UF		500V
C5905	1-126-925-11	ELECT	470UF	20.00%	10V
C5906	1-130-491-00	MYLAR	0.047UF	5.00%	50V
C5907	1-107-638-11	ELECT	33UF	20.00%	160V
C5908	1-106-383-00	MYLAR	0.047UF	10.00%	200V
C5909	1-126-933-11	ELECT	100UF	20.00%	16V
C5910	1-130-471-00	MYLAR	0.001UF	5.00%	50V
C5911	1-107-949-11	ELECT	2.2UF	20.00%	160V
C5912	1-104-999-11	MYLAR	0.1UF	10.00%	200V
C5913	1-130-471-00	MYLAR	0.001UF	5.00%	50V
C5914	1-126-933-11	ELECT	100UF	20.00%	16V
C5916	1-130-491-00	MYLAR	0.047UF	5.00%	50V
C5917	1-126-925-11	ELECT	470UF	20.00%	10V
C5918	1-115-341-51	CERAMIC	120PF	10.00%	500V
C5920	1-125-797-91	ELECT	10UF	20.00%	50V
C5921	1-102-852-91	CERAMIC	47PF	5.00%	50V
		<CONNECTOR>			
CN5901*	1-564-510-11	PLUG, CONNECTOR 7P			
CN5904*	1-770-723-11	CONNECTOR, BOARD TO BOARD 8P			
		<DIODE>			
D5901	8-719-921-20	DIODE 1SS119-25TD			
D5902	8-719-110-88	DIODE MTZJ-T-77-39			
D5903	8-719-921-20	DIODE 1SS119-25TD			
D5904	8-719-110-88	DIODE MTZJ-T-77-39			
D5905	8-719-921-20	DIODE 1SS119-25TD			
D5906	1-249-406-11	CARBON	120	5%	1/4W
D5907	1-249-406-11	CARBON	120	5%	1/4W
		<COIL>			
L5901	1-414-187-11	INDUCTOR	47UH		
L5902	1-414-856-11	INDUCTOR	10UH		
		<TRANSISTOR>			
Q5901	8-729-230-45	TRANSISTOR 2SC2458TP-YGR			
Q5902	8-729-809-26	TRANSISTOR 2SA1606-E			
Q5903	8-729-230-45	TRANSISTOR 2SC2458TP-YGR			
Q5904	8-729-139-98	TRANSISTOR 2SA1175TP-HFE			
Q5905	8-729-230-45	TRANSISTOR 2SC2458TP-YGR			
Q5906	8-729-809-29	TRANSISTOR 2SC4159-E			
Q5908	8-729-139-96	TRANSISTOR 2SC2785TP-HFE			
Q5909	8-729-139-96	TRANSISTOR 2SC2785TP-HFE			
		<RESISTOR>			
R5901	1-220-951-91	METAL	220	5%	1/2W
R5902	1-249-414-11	CARBON	560	5%	1/4W
R5903	1-247-734-11	CARBON	39	5%	1/2W
R5904	1-220-952-91	METAL MELF	330	5%	1/2W
R5905	1-220-958-91	RES, METAL FILM	1K		
R5906	1-220-958-91	RES, METAL FILM	1K		
R5907	1-220-958-91	RES, METAL FILM	1K		
R5908	1-249-383-11	CARBON	1.5	5%	1/4W
R5909	1-220-951-91	METAL	220	5%	1/2W
R5910	1-220-946-81	METAL MELF	68	5%	1/2W
R5911	1-249-439-11	CARBON	68K	5%	1/4W
R5912	1-220-975-91	METAL MELF	47K	5%	1/2W
R5914	1-220-946-81	METAL MELF	68	5%	1/2W
R5915	1-220-969-91	METAL CHIP	10K	5%	1/2W
R5916	1-220-959-91	METAL MELF	1.5K	5%	1/2W
R5917	1-220-957-91	METAL MELF	820	5%	1/2W
R5918	1-220-969-91	METAL CHIP	10K	5%	1/2W

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

VM1

REF.NO.	PART NO.	DESCRIPTION			REMARK
R5919	1-249-417-11	CARBON	1K	5%	1/4W
R5920	1-249-439-11	CARBON	68K	5%	1/4W
R5921	1-216-476-11	METAL OXIDE	180	5%	3W
R5922	1-220-955-91	METAL MELF	560	5%	1/2W
R5923	1-249-383-11	CARBON	1.5	5%	1/4W
R5925	1-249-400-11	CARBON	39	5%	1/4W
R5929	1-215-880-00	METAL OXIDE	10	5%	2W
R5930	1-220-954-91	METAL MELF	470	5%	1/2W
R5931	1-220-954-91	METAL MELF	470	5%	1/2W
R5932	1-220-954-91	METAL MELF	470	5%	1/2W
R5933	1-220-954-91	METAL MELF	470	5%	1/2W
R5934	1-220-970-91	METAL MELF	12K	5%	1/2W
R5935	1-220-969-91	METAL CHIP	10K	5%	1/2W

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MISCELLANEOUS
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⚠	1-403-619-81	COIL, DEMAGNETIZATION
⚠	1-451-475-11	DEFLECTION YOKE (Y25RSA)
	1-452-094-00	CIRCULAR DISC MAGNET B
	1-452-032-00	MAGNET,DISC
	1-452-896-61	COIL, NA ROTATION (RT-200)
	1-503-902-11	SPEAKER (15X6.5 CM)
	1-529-190-11	SPEAKER (5CM)
⚠	1-574-062-61	CORD, POWER (WITH CONNECTOR) 2.5A/250V
⚠	8-733-250-05	PICTURE TUBE (A60LPN70X)
	8-453-011-21	NA299-S

****

REF.NO.	PART NO.	DESCRIPTION	REMARK

ACCESSORIES AND PACKING MATERIALS
****

	3-701-910-00	SCREW, SPECIAL (DIA. 3.8X20)
	3-865-956-11	MANUAL INSTRUCTION
*	4-065-594-01	BAG, PROTECTION
*	4-069-322-02	INDIVIDUAL CARTON
*	4-069-323-01	CUSHION (UPPER)(ASSY)
*	4-069-324-01	CUSHION (LOWER)(ASSY)
	4-392-003-31	BAND, HOLD
	4-392-004-21	CLIP

****

REMOTE COMMANDER
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1-418-038-11	REMOTE COMMANDER (RM-954)
9-933-895-01	BATTERY COVER, REMOTE COMMANDER

Sony Corporation
SONY Technology Malaysia Sdn. Bhd.
Visual Entertainment of General Area

9-872-214-01

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